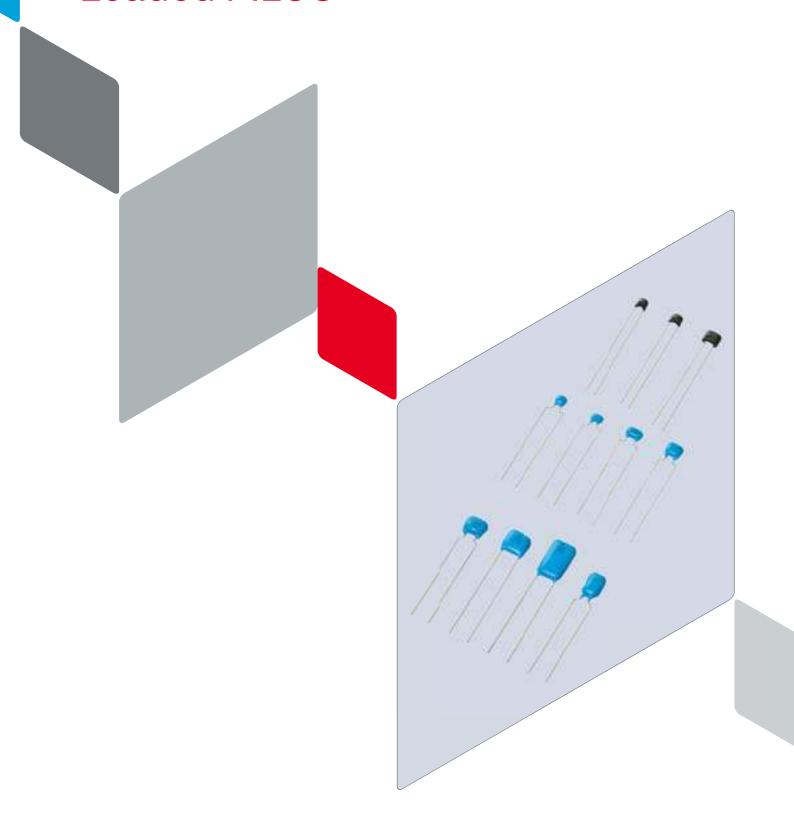
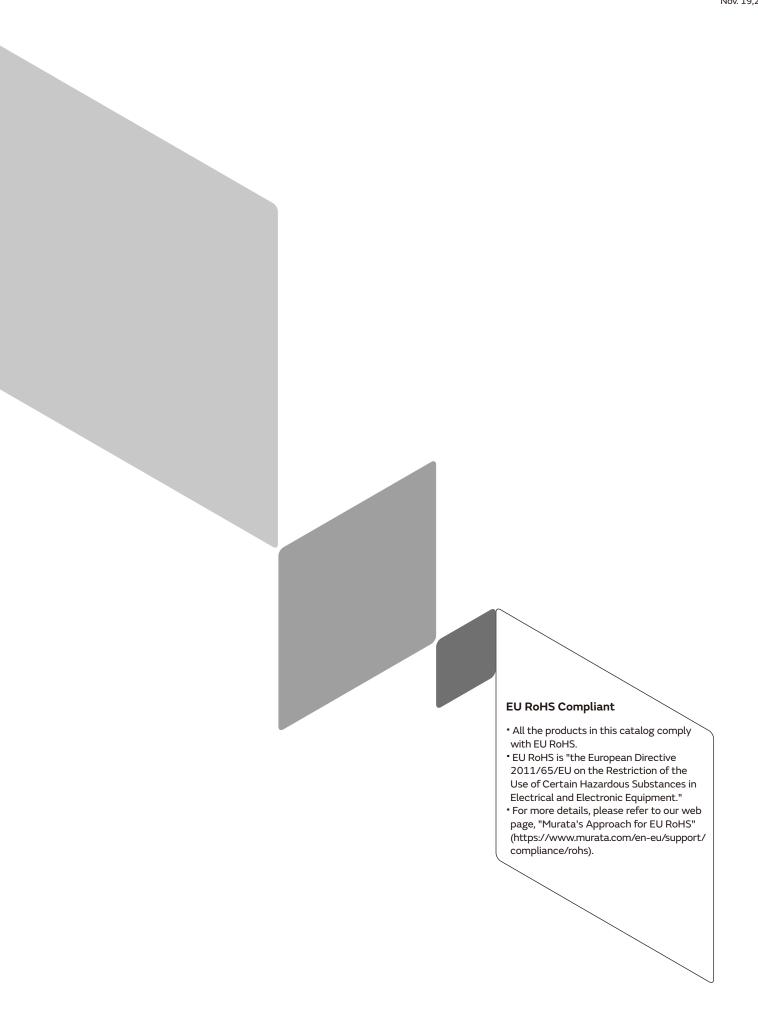


Leaded MLCC





Contents

Product specifications are as of October 2019.

Part Numbering	p2
1 Leaded MLCC for Automotive	
RCE Series (DC25V-DC1kV)	p4
Marking	р6
Temperature Compensating Type, COG/U2J Characteristics	р6
High Dielectric Constant Type, X7R/X7S Characteristics	p13
Specifications and Test Methods	p17
2 150°C Operation Leaded MLCC for Automotive	
RHE Series (DC25V-DC100V)	p25
Marking	p26
Temperature Compensating Type, X8G Characteristics	p27
High Dielectric Constant Type, X8L Characteristics	p28
Specifications and Test Methods	p31
3 200°C Operation Leaded MLCC for Automotive	
RHS Series (DC100V-DC500V)	р34
Marking	p35
Temperature Compensating Type, CCG/UNJ Characteristics	p35
High Dielectric Constant Type, X9Q Characteristics	p37
Specifications and Test Methods	p38
4 Leaded MLCC for General Purpose	
RDE Series (DC25V-DC1kV)	p44
● Marking	p45
Temperature Compensating Type, COG/U2J Characteristics	p45
High Dielectric Constant Type, X7R/X7S Characteristics	p52
Specifications and Test Methods	p56
5 Leaded MLCC for General Purpose	
RDE Series Large Capacitance and High Allowable Ripple Current	
(DC250V-DC630V)	p60
● Marking	p61
High Dielectric Constant Type, X7T Characteristics	p61
Specifications and Test Methods	p63
Characteristics Reference Data (Typical Example)	p66
Packaging ·····	p67
∆ Caution	p69
Nicking	571

Please check the MURATA website (https://www.murata.com/) if you cannot find a part number in this catalog.

Part Numbering

Leaded MLCC

(Part Number)



1 Product ID

2 Series

Product ID	Series Code	
RC	E	Leaded MLCC for Automotive
RH	E	150°C Operation Leaded MLCC for Automotive
RH	s	200°C Operation Leaded MLCC for Automotive
RD	E	Leaded MLCC for General Purpose

3Temperature Characteristics

Temperatu	ıre Characte	ristic		Temperature Cha	Operating Temperature Range	
Code	Public S	TD Code	Reference Temperature			
5C	COG	EIA	25°C	25 to 125°C	0±30ppm/°C	-55 to 125°C
30	Cod	LIA	25 C	-55 to 25°C	0+30/-72ppm/°C	-55 to 125 C
5G	X8G	*1	25°C	25 to 150°C	0±30ppm/°C	-55 to 150°C
5G	Add	"1	25°C	-55 to 25°C	0+30/-72ppm/°C	-55 10 150 -C
				-55 to 25°C	0+30/-72ppm/°C	
7G	7G CCG		25°C	25 to 125°C	0±30ppm/°C	-55 to 200°C
				125 to 200°C	0+72/-30ppm/°C	
				-55 to 25°C	-750+120/-347ppm/°C	
7 J	7J UNJ *1		25°C	25 to 125°C	-750±120ppm/°C	-55 to 200°C
				125 to 200°C	-750+347/-120ppm/°C	
		F1.4	2500	25 to 125°C*2	-750±120ppm/°C	FF 1 12500
70	U2J	EIA	25°C	-55 to 25°C	-750+120/-347ppm/°C	-55 to 125°C
C7	X7S	EIA	25°C	-55 to 125°C	±22%	-55 to 125°C
D7	X7T	EIA	25°C	-55 to 125°C	+22%, -33%	-55 to 125°C
L8	X8L	*1	25°C	-55 to 150°C	+15%, -40%	-55 to 150°C
R7	X7R	EIA	25°C	-55 to 125°C	±15%	-55 to 125°C
Q9	X9Q	*1	25°C	-55 to 200°C	+15%, -70%	-55 to 200°C

^{*1} Murata Temperature Characteristic Code.

4Rated Voltage

Code	Rated Voltage
1E	DC25V
1H	DC50V
2A	DC100V
2D	DC200V
2E	DC250V
2W	DC450V
2H	DC500V
2J	DC630V
ЗА	DC1kV

5Capacitance

Expressed by three figures. The unit is pico-farad (pF). The first and second figures are significant digits, and the third figure expresses the number of zeros that follow the two numbers. If there is a decimal point, it is expressed by the capital letter "R." In this case, all figures are significant digits.

6Capacitance Tolerance

Code	Capacitance Tolerance
С	±0.25pF
D	±0.5pF
J	±5%
K	±10%
М	±20%

Continued on the following page. 🖊

^{*2} Rated Voltage 100Vdc max: 25 to 85°C

Continued from the preceding page. $\mbox{\ensuremath{\searrow}}$

7Dimensions (LxW)

-	,					
Code		Dimensions (LxW)				
	RCE Series	3.6×3.5mm max.				
	RHE Series	J.O×J.JIIII IIIdX.				
0	RHS Series	3.9×3.5mm max.				
	RDE Series	4.0×3.5mm max. or 5.0×3.5mm max. (Depends on Part Number List)				
	RCE Series	4.0×3.5mm max.				
	RHE Series	4.0×3.5111111111111111111111111111111111111				
1	RHS Series	4.2×3.5mm max.				
	RDE Series	4.5×3.5mm max. or 5.0×3.5mm max. (Depends on Part Number List				
2		5.5×4.0mm max.				
3		5.5×5.0mm max.				
4		7.5×5.5mm max.				
5	7.5×7.5mm max. (DC630V, DC1kV : 7.5×8.0mm max.)					
U	(DC630V	7.5×12.5mm max. , DC1kV : 7.5×13.0mm max.)				
W		5.5×7.5mm max.				

8Lead Style

Code	Lead Style	Lead Spacing
A2	Straight Long	2.5mm
B1	Straight Long	5.0mm
DB/DG	Straight Taping	2.5mm
E1	Straight Taping	5.0mm
K1	Inside Crimp	5.0mm
M1/M2	Inside Crimp Taping	5.0mm
P1	Outside Crimp	2.5mm
S1	Outside Crimp Taping	2.5mm

Individual Specification Code

Expressed by three figures

Packaging

Code	Packaging
Α	Ammo Pack
В	Bulk

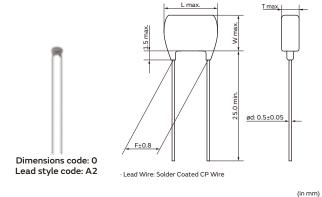
(in mm)

(in mm)

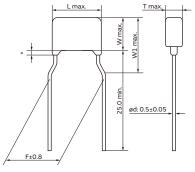
Leaded MLCC for Automotive

Features

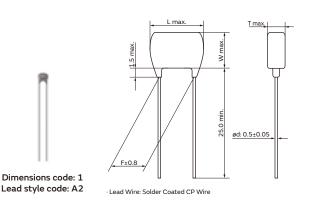
- 1. Small size and large capacitance
- 2. Low ESR and ESL suitable for high frequency
- 3. Meet AEC-Q200, ISO7637-2 (surge test) requirement
- 4. Meet LF (Lead Free) and HF (Halogen Free)
- 5. Flow soldering and welding are available. (Re-flow soldering is not available.)
- 6. If copper wire is necessary at welding process, copper wire is available based on request.



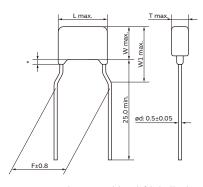
Dimensions code: 0 Lead style code: K1



- Coating extension does not exceed the end of the lead bend. Lead Wire: Solder Coated CP Wire



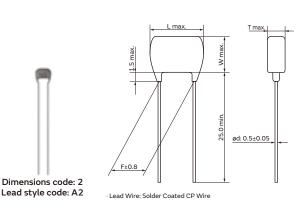




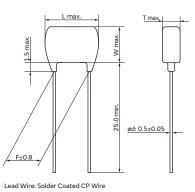
Coating extension does not exceed the end of the lead bend. Lead Wire: Solder Coated CP Wire

(in mm)

ød: 0.5±0.05



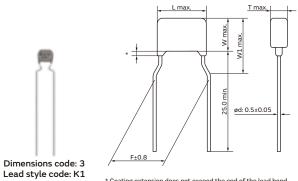




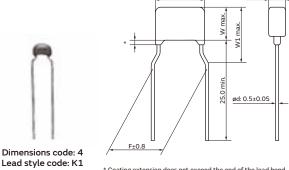
Coating extension does not exceed the end of the lead bend.

Lead Wire: Solder Coated CP Wire

Continued on the following page. 🖊



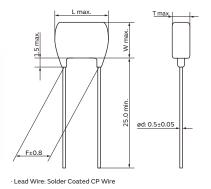
(in mm)



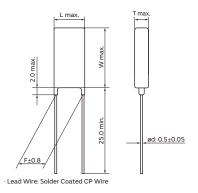
* Coating extension does not exceed the end of the lead bend. \cdot Lead Wire: Solder Coated CP Wire

(in mm)



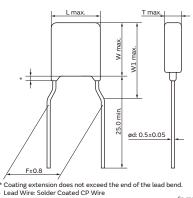


Dimensions code: U Lead style code: B1



(in mm)





(in mm)

Dimensions

Dimensions and	Dimensions (mm)								
Lead Style Code	L	W	W1	Т	F	d			
0A2/0DB	3.6	3.5	-		2.5	0.5			
0K1/0M1	3.6	3.5	6.0		5.0	0.5			
1A2/1DB	4.0	3.5	-		2.5	0.5			
1K1/1M1	4.0	3.5	5.0		5.0	0.5			
2A2/2DB	5.5	4.0	-	See the individual	2.5	0.5			
2K1/2M1	5.5	4.0	6.0		5.0	0.5			
3A2/3DB	5.5	5.0	-	product specification	2.5	0.5			
3K1/3M1	5.5	5.0	7.5		5.0	0.5			
4K1/4M1	7.5	5.5	8.0		5.0	0.5			
5B1/5E1	7.5	7.5*	-		5.0	0.5			
UB1/UE1	7.7	12.5*	-		5.0	0.5			
WK1/WM1	5.5	7.5	10.0		5.0	0.5			

*DC630V, DC1kV: W+0.5mm

Marking

Marking												
Rated Voltage	DC25V		DC50V			DC100V		DC250V	DC630V	DC1kV		
Dimensions Char.	X7R	COG	X7S	X7R	COG	X7S	X7R	>	(7R, U2J, C0	G		
0			-			-		-	-	-		
1	224K	A 102J	[105K]	224K	A 102J	-	(224K)	U 102J (U2J)	-	-		
2	(M475)	(M 563) J5A	(H475)	(M _{K5C})	(M ¹⁰³ _{J1A})	-	(H105)	(U2J) (H2J) (H2J) (H2J) (H2J)	(U2J) (153) (K7C)	(U2J) (U2J)		
	\ <u></u> /		\ \	\ -\ \	\\			(X7R) (X7R) (COG)	(X7R) (X7R) (COG)	(X7R) (X7R) (X7R) (X7R) (COG)		
3, 4, W	(M226 K2C	-	(M106) K5C	(€)335 K5C	-	(M225 K1C)	-	(U2J) (W2Z4 K4C (X7R)	(U2J) (M104 K7C (X7R)	(U2J) (W333) (X7R)		
5, U	-	-	-	-	-	-	-	- (X7R)	(U2 J) (U2 J) (WATAL MTC) (X7R)	(U2J) (U2J) (X7R)		
Temperature Characteristics		•	G char.: A, X7 se refer to th			: U)						
Nominal Capacitance						figures						
Capacitance Tolerance	Marked w	Under 100pF: Actual value 100pF and over: Marked with 3 figures Marked with code A part is omitted (Please refer to the marking example.)										
Rated Voltage		,	25V: 2, DC50 se refer to th			/: 4, DC630V	': 7, DC1kV: A	A)				
Manufacturer's Identification	Marked wi		se refer to th	e marking ex	ample.)							

■ Temperature Compensating Type, COG/U2J Characteristics

Part Number	Temp. Char.	Rated Voltage	Capacitance	Dimensions LxW (mm)	Dimension T (mm)	Lead Space F (mm)	Lead Style Code Bulk	Lead Style Code Taping
RCE5C1H1R0C0□□H03□	COG (EIA)	50Vdc	1.0pF±0.25pF	3.6×3.5	2.5	2.5	A2	DB
RCE5C1H1R0C0 H03	COG (EIA)	50Vdc	1.0pF±0.25pF	3.6×3.5	2.5	5.0	K1	M1
RCE5C1H2R0C0 H03	COG (EIA)	50Vdc	2.0pF±0.25pF	3.6×3.5	2.5	2.5	A2	DB
RCE5C1H2R0C0 H03	COG (EIA)	50Vdc	2.0pF±0.25pF	3.6×3.5	2.5	5.0	K1	M1
RCE5C1H3R0C0 H03	COG (EIA)	50Vdc	3.0pF±0.25pF	3.6×3.5	2.5	2.5	A2	DB
RCE5C1H3R0C0 H03	COG (EIA)	50Vdc	3.0pF±0.25pF	3.6×3.5	2.5	5.0	K1	M1
RCE5C1H4R0C0 H03	COG (EIA)	50Vdc	4.0pF±0.25pF	3.6×3.5	2.5	2.5	A2	DB
RCE5C1H4R0C0 H03	COG (EIA)	50Vdc	4.0pF±0.25pF	3.6×3.5	2.5	5.0	K1	M1
RCE5C1H5R0C0 H03	COG (EIA)	50Vdc	5.0pF±0.25pF	3.6×3.5	2.5	2.5	A2	DB
RCE5C1H5R0C0 H03	COG (EIA)	50Vdc	5.0pF±0.25pF	3.6×3.5	2.5	5.0	K1	M1

Continued from the preceding page.											
Part Number	Temp. Char.	Rated Voltage	Capacitance	Dimensions LxW (mm)	Dimension T (mm)	Lead Space F (mm)	Lead Style Code Bulk	Lead Style Code Taping			
RCE5C1H6R0D0□□H03□	COG (EIA)	50Vdc	6.0pF±0.5pF	3.6×3.5	2.5	2.5	A2	DB			
RCE5C1H6R0D0□□H03□	COG (EIA)	50Vdc	6.0pF±0.5pF	3.6×3.5	2.5	5.0	K1	M1			
RCE5C1H7R0D0□□H03□	COG (EIA)	50Vdc	7.0pF±0.5pF	3.6×3.5	2.5	2.5	A2	DB			
RCE5C1H7R0D0 H03	COG (EIA)	50Vdc	7.0pF±0.5pF	3.6×3.5	2.5	5.0	K1	M1			
RCE5C1H8R0D0 H03	COG (EIA)	50Vdc	8.0pF±0.5pF	3.6×3.5	2.5	2.5	A2	DB			
RCE5C1H8R0D0 H03	COG (EIA)	50Vdc	8.0pF±0.5pF	3.6×3.5	2.5	5.0	K1	M1			
RCE5C1H9R0D0 H03	COG (EIA)	50Vdc	9.0pF±0.5pF	3.6×3.5	2.5	2.5	A2	DB			
RCE5C1H9R0D0 H03	COG (EIA)	50Vdc	9.0pF±0.5pF	3.6×3.5	2.5	5.0	K1	M1			
RCE5C1H100J0 H03	COG (EIA)	50Vdc	10pF±5%	3.6×3.5	2.5	2.5	A2	DB			
RCE5C1H100J0 H03	COG (EIA)	50Vdc	10pF±5%	3.6×3.5	2.5	5.0	K1	M1			
RCE5C1H120J0 H03	COG (EIA)	50Vdc	12pF±5%	3.6×3.5	2.5	2.5	A2	DB			
RCE5C1H12OJO HO3	COG (EIA)	50Vdc		3.6×3.5	2.5	5.0	K1	M1			
	, ,	50Vdc	12pF±5%	3.6×3.5	2.5	2.5		DB			
RCE5C1H150J0 H03	COG (EIA)	50Vdc	15pF±5%		2.5	5.0	A2	M1			
RCE5C1H150J0 H03	COG (EIA)		15pF±5%	3.6×3.5			K1				
RCE5C1H180J0 H03	COG (EIA)	50Vdc	18pF±5%	3.6×3.5	2.5	2.5	A2	DB M1			
RCE5C1H180J0 H03	COG (EIA)	50Vdc	18pF±5%	3.6×3.5	2.5	5.0	K1	M1			
RCE5C1H220J0 H03	COG (EIA)	50Vdc	22pF±5%	3.6×3.5	2.5	2.5	A2	DB			
RCE5C1H220J0 H03	COG (EIA)	50Vdc	22pF±5%	3.6×3.5	2.5	5.0	K1	M1			
RCE5C1H270J0 H03	COG (EIA)	50Vdc	27pF±5%	3.6×3.5	2.5	2.5	A2	DB			
RCE5C1H270J0 H03	COG (EIA)	50Vdc	27pF±5%	3.6×3.5	2.5	5.0	K1	M1			
RCE5C1H330J0 H03	COG (EIA)	50Vdc	33pF±5%	3.6×3.5	2.5	2.5	A2	DB			
RCE5C1H330J0 H03	COG (EIA)	50Vdc	33pF±5%	3.6×3.5	2.5	5.0	K1	M1			
RCE5C1H390J0 H03	COG (EIA)	50Vdc	39pF±5%	3.6×3.5	2.5	2.5	A2	DB			
RCE5C1H390J0 H03	COG (EIA)	50Vdc	39pF±5%	3.6×3.5	2.5	5.0	K1	M1			
RCE5C1H470J0 H03	COG (EIA)	50Vdc	47pF±5%	3.6×3.5	2.5	2.5	A2	DB			
RCE5C1H470J0 H03	COG (EIA)	50Vdc	47pF±5%	3.6×3.5	2.5	5.0	K1	M1			
RCE5C1H560J0 H03	COG (EIA)	50Vdc	56pF±5%	3.6×3.5	2.5	2.5	A2	DB			
RCE5C1H560J0 H03	COG (EIA)	50Vdc	56pF±5%	3.6×3.5	2.5	5.0	K1	M1			
RCE5C1H680J0□□H03□	COG (EIA)	50Vdc	68pF±5%	3.6×3.5	2.5	2.5	A2	DB			
RCE5C1H680J0□□H03□	COG (EIA)	50Vdc	68pF±5%	3.6×3.5	2.5	5.0	K1	M1			
RCE5C1H820J0 H03	COG (EIA)	50Vdc	82pF±5%	3.6×3.5	2.5	2.5	A2	DB			
RCE5C1H820J0 H03	COG (EIA)	50Vdc	82pF±5%	3.6×3.5	2.5	5.0	K1	M1			
RCE5C1H101J0 H03	COG (EIA)	50Vdc	100pF±5%	3.6×3.5	2.5	2.5	A2	DB			
RCE5C1H101J0 H03	COG (EIA)	50Vdc	100pF±5%	3.6×3.5	2.5	5.0	K1	M1			
RCE5C1H121J0 H03	COG (EIA)	50Vdc	120pF±5%	3.6×3.5	2.5	2.5	A2	DB			
RCE5C1H121J0 H03	COG (EIA)	50Vdc	120pF±5%	3.6×3.5	2.5	5.0	K1	M1			
RCE5C1H151J0 H03	COG (EIA)	50Vdc	150pF±5%	3.6×3.5	2.5	2.5	A2	DB			
RCE5C1H151J0 H03	COG (EIA)	50Vdc	150pF±5%	3.6×3.5	2.5	5.0	K1	M1			
RCE5C1H181J0 H03	COG (EIA)	50Vdc	180pF±5%	3.6×3.5	2.5	2.5	A2	DB			
RCE5C1H181J0 H03	COG (EIA)	50Vdc	180pF±5%	3.6×3.5	2.5	5.0	K1	M1			
RCE5C1H221J0 H03	COG (EIA)	50Vdc	220pF±5%	3.6×3.5	2.5	2.5	A2	DB			
RCE5C1H221J0□□H03□	COG (EIA)	50Vdc	220pF±5%	3.6×3.5	2.5	5.0	K1	M1			
RCE5C1H271J0□□H03□	COG (EIA)	50Vdc	270pF±5%	3.6×3.5	2.5	2.5	A2	DB			
RCE5C1H271J0 H03	COG (EIA)	50Vdc	270pF±5%	3.6×3.5	2.5	5.0	K1	M1			
RCE5C1H331J0 H03	COG (EIA)	50Vdc	330pF±5%	3.6×3.5	2.5	2.5	A2	DB			
RCE5C1H331J0 H03	COG (EIA)	50Vdc	330pF±5%	3.6×3.5	2.5	5.0	K1	M1			
RCE5C1H391J0□□H03□	COG (EIA)	50Vdc	390pF±5%	3.6×3.5	2.5	2.5	A2	DB			
RCE5C1H391J0□□H03□	COG (EIA)	50Vdc	390pF±5%	3.6×3.5	2.5	5.0	K1	M1			
RCE5C1H471J0 H03	COG (EIA)	50Vdc	470pF±5%	3.6×3.5	2.5	2.5	A2	DB			
RCE5C1H471J0 H03	COG (EIA)	50Vdc	470pF±5%	3.6×3.5	2.5	5.0	K1	M1			
RCE5C1H561J0□□H03□	COG (EIA)	50Vdc	560pF±5%	3.6×3.5	2.5	2.5	A2	DB			
RCE5C1H561J0□□H03□	COG (EIA)	50Vdc	560pF±5%	3.6×3.5	2.5	5.0	K1	M1			
RCE5C1H681J0□□H03□	COG (EIA)	50Vdc	680pF±5%	3.6×3.5	2.5	2.5	A2	DB			
RCE5C1H681J0 H03	COG (EIA)	50Vdc	680pF±5%	3.6×3.5	2.5	5.0	K1	M1			
RCE5C1H821J0 H03	COG (EIA)	50Vdc	820pF±5%	3.6×3.5	2.5	2.5	A2	DB			
RCE5C1H821J0 H03	COG (EIA)	50Vdc	820pF±5%	3.6×3.5	2.5	5.0	K1	M1			
RCE5C1H102J0 H03	COG (EIA)	50Vdc	1000pF±5%	3.6×3.5	2.5	2.5	A2	DB			
			1								

Part Number	Temp.	Rated	Capacitance	Dimensions LxW	Dimension T	Lead Space	Lead Style Code	Lead Style Code
	Char.	Voltage	· ·	(mm)	(mm)	(mm)	Bulk	Taping
RCE5C1H102J0 H03	COG (EIA)	50Vdc	1000pF±5%	3.6×3.5	2.5	5.0	K1	M1
RCE5C1H122J0 H03	COG (EIA)	50Vdc	1200pF±5%	3.6×3.5	2.5	2.5	A2	DB
RCE5C1H122J0 H03 RCE5C1H152J0 H03	COG (EIA)	50Vdc 50Vdc	1200pF±5% 1500pF±5%	3.6×3.5 3.6×3.5	2.5	5.0 2.5	K1 A2	M1 DB
RCE5C1H152J0 H03	COG (EIA)	50Vdc	1500pF±5%	3.6×3.5	2.5	5.0	K1	M1
RCE5C1H182J0 H03	COG (EIA)	50Vdc	1800pF±5%	3.6×3.5	2.5	2.5	A2	DB
RCE5C1H182J0 H03	COG (EIA)	50Vdc	1800pF±5%	3.6×3.5	2.5	5.0	K1	M1
RCE5C1H222J0 H03	COG (EIA)	50Vdc	2200pF±5%	3.6×3.5	2.5	2.5	A2	DB
RCE5C1H222J0 H03	COG (EIA)	50Vdc	2200pF±5%	3.6×3.5	2.5	5.0	K1	M1
RCE5C1H272J0□□H03□	COG (EIA)	50Vdc	2700pF±5%	3.6×3.5	2.5	2.5	A2	DB
RCE5C1H272J0□□H03□	COG (EIA)	50Vdc	2700pF±5%	3.6×3.5	2.5	5.0	K1	M1
RCE5C1H332J0 H03	COG (EIA)	50Vdc	3300pF±5%	3.6×3.5	2.5	2.5	A2	DB
RCE5C1H332J0□□H03□	COG (EIA)	50Vdc	3300pF±5%	3.6×3.5	2.5	5.0	K1	M1
RCE5C1H392J0□□H03□	COG (EIA)	50Vdc	3900pF±5%	3.6×3.5	2.5	2.5	A2	DB
RCE5C1H392J0□□H03□	COG (EIA)	50Vdc	3900pF±5%	3.6×3.5	2.5	5.0	K1	M1
RCE5C1H472J1 H03	COG (EIA)	50Vdc	4700pF±5%	4.0×3.5	2.5	2.5	A2	DB
RCE5C1H472J1 H03	COG (EIA)	50Vdc	4700pF±5%	4.0×3.5	2.5	5.0	K1	M1
RCE5C1H562J1 H03	COG (EIA)	50Vdc	5600pF±5%	4.0×3.5	2.5	2.5	A2	DB
RCE5C1H562J1 H03	COG (EIA)	50Vdc	5600pF±5%	4.0×3.5	2.5	5.0	K1	M1
RCE5C1H682J1 H03 RCE5C1H682J1 H03	COG (EIA)	50Vdc 50Vdc	6800pF±5% 6800pF±5%	4.0×3.5 4.0×3.5	2.5	2.5 5.0	A2 K1	DB M1
RCE5C1H822J1 H03	COG (EIA)	50Vdc	8200pF±5%	4.0×3.5 4.0×3.5	2.5	2.5	A2	DB
RCE5C1H822J1 H03	COG (EIA)	50Vdc	8200pF±5% 8200pF±5%	4.0×3.5	2.5	5.0	K1	M1
RCE5C1H103J1 H03	COG (EIA)	50Vdc	10000pF±5%	4.0×3.5	2.5	2.5	A2	DB
RCE5C1H103J1 H03	COG (EIA)	50Vdc	10000pF±5%	4.0×3.5	2.5	5.0	K1	M1
RCE5C1H123J1 H03	COG (EIA)	50Vdc	12000pF±5%	4.0×3.5	2.5	2.5	A2	DB
RCE5C1H123J1 H03	COG (EIA)	50Vdc	12000pF±5%	4.0×3.5	2.5	5.0	K1	M1
RCE5C1H153J1 H03	COG (EIA)	50Vdc	15000pF±5%	4.0×3.5	2.5	2.5	A2	DB
RCE5C1H153J1 H03	COG (EIA)	50Vdc	15000pF±5%	4.0×3.5	2.5	5.0	K1	M1
RCE5C1H183J1 H03	COG (EIA)	50Vdc	18000pF±5%	4.0×3.5	2.5	2.5	A2	DB
RCE5C1H183J1 H03	COG (EIA)	50Vdc	18000pF±5%	4.0×3.5	2.5	5.0	K1	M1
RCE5C1H223J1 H03	COG (EIA)	50Vdc	22000pF±5%	4.0×3.5	2.5	2.5	A2	DB
RCE5C1H223J1 H03	COG (EIA)	50Vdc	22000pF±5%	4.0×3.5	2.5	5.0	K1	M1
RCE5C1H273J2 H03	COG (EIA)	50Vdc	27000pF±5%	5.5×4.0	3.15	2.5	A2	DB
RCE5C1H273J2 H03	COG (EIA)	50Vdc	27000pF±5%	5.5×4.0	3.15	5.0	K1	M1
RCE5C1H333J2 H03	COG (EIA)	50Vdc	33000pF±5%	5.5×4.0	3.15	2.5	A2	DB M1
RCE5C1H333J2	COG (EIA)	50Vdc 50Vdc	33000pF±5% 39000pF±5%	5.5×4.0 5.5×4.0	3.15 3.15	5.0 2.5	K1 A2	M1 DB
RCE5C1H393J2 H03	COG (EIA)	50Vdc	39000pF±5%	5.5×4.0	3.15	5.0	K1	M1
RCE5C1H473J2 H03	COG (EIA)	50Vdc	47000pF±5%	5.5×4.0	3.15	2.5	A2	DB
RCE5C1H473J2 H03	COG (EIA)	50Vdc	47000pF±5%	5.5×4.0	3.15	5.0	K1	M1
RCE5C1H563J2 H03	COG (EIA)	50Vdc	56000pF±5%	5.5×4.0	3.15	2.5	A2	DB
RCE5C1H563J2 H03	COG (EIA)	50Vdc	56000pF±5%	5.5×4.0	3.15	5.0	K1	M1
RCE5C1H683J2□□H03□	COG (EIA)	50Vdc	68000pF±5%	5.5×4.0	3.15	2.5	A2	DB
RCE5C1H683J2□□H03□	COG (EIA)	50Vdc	68000pF±5%	5.5×4.0	3.15	5.0	K1	M1
RCE5C1H823J2□□H03□	COG (EIA)	50Vdc	82000pF±5%	5.5×4.0	3.15	2.5	A2	DB
RCE5C1H823J2 H03	COG (EIA)	50Vdc	82000pF±5%	5.5×4.0	3.15	5.0	K1	M1
RCE5C1H104J2 H03	COG (EIA)	50Vdc	0.1µF±5%	5.5×4.0	3.15	2.5	A2	DB
RCE5C1H104J2 H03	COG (EIA)	50Vdc	0.1µF±5%	5.5×4.0	3.15	5.0	K1	M1
RCE5C2A1R0C0 H03	COG (EIA)	100Vdc	1.0pF±0.25pF	3.6×3.5	2.5	2.5	A2	DB
RCE5C2A1R0C0 H03	COG (EIA)	100Vdc	1.0pF±0.25pF	3.6×3.5	2.5	5.0	K1	M1
RCE5C2A2R0C0 H03	COG (EIA)	100Vdc 100Vdc	2.0pF±0.25pF 2.0pF±0.25pF	3.6×3.5	2.5 2.5	2.5 5.0	A2	DB M1
RCE5C2A2R0C0 H03 RCE5C2A3R0C0 H03	COG (EIA)	100Vdc	3.0pF±0.25pF	3.6×3.5 3.6×3.5	2.5	2.5	K1 A2	DB
RCE5C2A3R0C0 H03	COG (EIA)	100Vdc	3.0pF±0.25pF	3.6×3.5	2.5	5.0	K1	M1
RCE5C2A4R0C0 H03	COG (EIA)	100Vdc	4.0pF±0.25pF	3.6×3.5	2.5	2.5	A2	DB
RCE5C2A4R0C0 H03	COG (EIA)	100Vdc	4.0pF±0.25pF	3.6×3.5	2.5	5.0	K1	M1
	(-11 1)			5 5.5				

Continued from the preceding pa	ige. 🛚			Dimensions	Dimension	I and Sugar	Lood Chulo	I and Chula
Part Number	Temp.	Rated	Capacitance	Dimensions LxW	Dimension T	Lead Space F	Lead Style Code	Lead Style Code
	Char.	Voltage	50 5005 5	(mm)	(mm)	(mm)	Bulk	Taping
RCE5C2A5R0C0 H03	COG (EIA)	100Vdc	5.0pF±0.25pF	3.6×3.5	2.5	2.5	A2	DB
RCE5C2A5R0C0 H03	COG (EIA)	100Vdc	5.0pF±0.25pF	3.6×3.5	2.5	5.0	K1	M1
RCE5C2A6R0D0 H03	COG (EIA)	100Vdc	6.0pF±0.5pF	3.6×3.5	2.5	2.5	A2	DB
RCE5C2A6R0D0 H03	COG (EIA)	100Vdc	6.0pF±0.5pF	3.6×3.5	2.5	5.0	K1	M1
RCE5C2A7R0D0 H03	COG (EIA)	100Vdc	7.0pF±0.5pF	3.6×3.5	2.5	2.5	A2	DB
RCE5C2A7RODO HO3	COG (EIA)	100Vdc	7.0pF±0.5pF	3.6×3.5	2.5	5.0	K1	M1
RCE5C2A8R0D0 H03	COG (EIA)	100Vdc	8.0pF±0.5pF	3.6×3.5	2.5	2.5	A2	DB
RCE5C2A8R0D0□□H03□	COG (EIA)	100Vdc	8.0pF±0.5pF	3.6×3.5	2.5	5.0	K1	M1
RCE5C2A9R0D0 H03	COG (EIA)	100Vdc	9.0pF±0.5pF	3.6×3.5	2.5	2.5	A2	DB
RCE5C2A9R0D0 H03	COG (EIA)	100Vdc	9.0pF±0.5pF	3.6×3.5	2.5	5.0	K1	M1
RCE5C2A100J0 H03	COG (EIA)	100Vdc	10pF±5%	3.6×3.5	2.5	2.5	A2	DB
RCE5C2A100J0 H03	COG (EIA)	100Vdc	10pF±5%	3.6×3.5	2.5	5.0	K1	M1
RCE5C2A120J0 H03	COG (EIA)	100Vdc	12pF±5%	3.6×3.5	2.5	2.5	A2	DB
RCE5C2A120J0 H03	COG (EIA)	100Vdc	12pF±5%	3.6×3.5	2.5	5.0	K1	M1
RCE5C2A150J0 H03	COG (EIA)	100Vdc	15pF±5%	3.6×3.5	2.5	2.5	A2	DB
RCE5C2A150J0 H03	COG (EIA)	100Vdc	15pF±5%	3.6×3.5	2.5	5.0	K1	M1
RCE5C2A180J0 H03	COG (EIA)	100Vdc	18pF±5%	3.6×3.5	2.5	2.5	A2	DB
RCE5C2A180J0 H03	COG (EIA)	100Vdc	18pF±5%	3.6×3.5	2.5	5.0	K1	M1
RCE5C2A220J0 H03	COG (EIA)	100Vdc	22pF±5%	3.6×3.5	2.5	2.5	A2	DB
RCE5C2A220J0 H03	COG (EIA)	100Vdc	22pF±5%	3.6×3.5	2.5	5.0	K1	M1
RCE5C2A270J0 H03	COG (EIA)	100Vdc	27pF±5%	3.6×3.5	2.5	2.5	A2	DB
RCE5C2A270J0 H03	COG (EIA)	100Vdc	27pF±5%	3.6×3.5	2.5	5.0	K1	M1
RCE5C2A330J0 H03	COG (EIA)	100Vdc	33pF±5%	3.6×3.5	2.5	2.5	A2	DB
RCE5C2A330J0 H03	COG (EIA)	100Vdc	33pF±5%	3.6×3.5	2.5	5.0	K1	M1
RCE5C2A390J0 H03	COG (EIA)	100Vdc	39pF±5%	3.6×3.5	2.5	2.5	A2	DB
RCE5C2A390J0 H03	COG (EIA)	100Vdc	39pF±5%	3.6×3.5	2.5	5.0	K1	M1
RCE5C2A470J0 H03	COG (EIA)	100Vdc	47pF±5%	3.6×3.5	2.5	2.5	A2	DB
RCE5C2A470J0 H03	COG (EIA)	100Vdc	47pF±5%	3.6×3.5	2.5	5.0	K1	M1
RCE5C2A560J0 H03	COG (EIA)	100Vdc	56pF±5%	3.6×3.5	2.5	2.5	A2	DB
RCE5C2A560J0 H03	COG (EIA)	100Vdc	56pF±5%	3.6×3.5	2.5	5.0	K1	M1
RCE5C2A680J0 H03	COG (EIA)	100Vdc	68pF±5%	3.6×3.5	2.5	2.5	A2	DB
RCE5C2A680J0 H03	COG (EIA)	100Vdc	68pF±5%	3.6×3.5	2.5	5.0	K1	M1
RCE5C2A820J0 H03	COG (EIA)	100Vdc	82pF±5%	3.6×3.5	2.5	2.5	A2	DB M1
RCE5C2A820J0 H03	COG (EIA)	100Vdc	82pF±5%	3.6×3.5	2.5	5.0	K1	M1
RCE5C2A101J0 H03	COG (EIA)	100Vdc	100pF±5%	3.6×3.5	2.5	2.5	A2	DB M1
RCE5C2A101J0 H03	COG (EIA)	100Vdc	100pF±5% 120pF±5%	3.6×3.5	2.5	5.0 2.5	K1	M1
RCE5C2A121J0 H03 RCE5C2A121J0 H03	COG (EIA)	100Vdc 100Vdc	120pF±5% 120pF±5%	3.6×3.5 3.6×3.5	2.5	5.0	A2 K1	DB M1
RCE5C2A151J0 H03	COG (EIA)	100Vdc	150pF±5%	3.6×3.5	2.5	2.5	A2	DB
RCE5C2A151J0 H03	COG (EIA)	100Vdc	150pF±5%	3.6×3.5	2.5	5.0	K1	M1
RCE5C2A181J0 H03	COG (EIA)	100Vdc	180pF±5%	3.6×3.5	2.5	2.5	A2	DB
RCE5C2A181J0 H03	COG (EIA)	100Vdc	180pF±5%	3.6×3.5	2.5	5.0	K1	M1
RCE5C2A221J0 H03	COG (EIA)	100Vdc	220pF±5%	3.6×3.5	2.5	2.5	A2	DB
RCE5C2A221J0 H03	COG (EIA)	100Vdc	220pF±5%	3.6×3.5	2.5	5.0	K1	M1
RCE5C2A271J0 H03	COG (EIA)	100Vdc	270pF±5%	3.6×3.5	2.5	2.5	A2	DB
RCE5C2A271J0 H03	COG (EIA)	100Vdc	270pF±5%	3.6×3.5	2.5	5.0	K1	M1
RCE5C2A331J0 H03	COG (EIA)	100Vdc	330pF±5%	3.6×3.5	2.5	2.5	A2	DB
RCE5C2A331J0 H03	COG (EIA)	100Vdc	330pF±5%	3.6×3.5	2.5	5.0	K1	M1
RCE5C2A391J0 H03	COG (EIA)	100Vdc	390pF±5%	3.6×3.5	2.5	2.5	A2	DB
RCE5C2A391J0 H03	COG (EIA)	100Vdc	390pF±5%	3.6×3.5	2.5	5.0	K1	M1
RCE5C2A471J0 H03	COG (EIA)	100Vdc	470pF±5%	3.6×3.5	2.5	2.5	A2	DB
RCE5C2A471J0 H03	COG (EIA)	100Vdc	470pF±5%	3.6×3.5	2.5	5.0	K1	M1
RCE5C2A561J0 H03	COG (EIA)	100Vdc	560pF±5%	3.6×3.5	2.5	2.5	A2	DB
RCE5C2A561J0 H03	COG (EIA)	100Vdc	560pF±5%	3.6×3.5	2.5	5.0	K1	M1
RCE5C2A681J0 H03	COG (EIA)	100Vdc	680pF±5%	3.6×3.5	2.5	2.5	A2	DB
RCE5C2A681J0 H03	COG (EIA)	100Vdc	680pF±5%	3.6×3.5	2.5	5.0	K1	M1
RCE5C2A821J0 H03	COG (EIA)	100Vdc	820pF±5%	3.6×3.5	2.5	2.5	A2	DB
	223 (LIA)		2-3p370	2.5			/ _	

Continued from the preceding page. ${f \Sigma}$

Continued from the preceding pa	age. 🔰							
Part Number	Temp. Char.	Rated Voltage	Capacitance	Dimensions LxW (mm)	Dimension T (mm)	Lead Space F (mm)	Lead Style Code Bulk	Lead Style Code Taping
RCE5C2A821J0□□H03□	COG (EIA)	100Vdc	820pF±5%	3.6×3.5	2.5	5.0	K1	M1
RCE5C2A102J0□□H03□	COG (EIA)	100Vdc	1000pF±5%	3.6×3.5	2.5	2.5	A2	DB
RCE5C2A102J0 H03	COG (EIA)	100Vdc	1000pF±5%	3.6×3.5	2.5	5.0	K1	M1
RCE5C2A122J0□□H03□	COG (EIA)	100Vdc	1200pF±5%	3.6×3.5	2.5	2.5	A2	DB
RCE5C2A122J0□□H03□	COG (EIA)	100Vdc	1200pF±5%	3.6×3.5	2.5	5.0	K1	M1
RCE5C2A152J0 H03	COG (EIA)	100Vdc	1500pF±5%	3.6×3.5	2.5	2.5	A2	DB
RCE5C2A152J0 H03	COG (EIA)	100Vdc	1500pF±5%	3.6×3.5	2.5	5.0	K1	M1
RCE5C2A182J1 H03	COG (EIA)	100Vdc	1800pF±5%	4.0×3.5	2.5	2.5	A2	DB
RCE5C2A182J1 H03	COG (EIA)	100Vdc	1800pF±5%	4.0×3.5	2.5	5.0	K1	M1
RCE5C2A222J1□□H03□	COG (EIA)	100Vdc	2200pF±5%	4.0×3.5	2.5	2.5	A2	DB
RCE5C2A222J1□□H03□	COG (EIA)	100Vdc	2200pF±5%	4.0×3.5	2.5	5.0	K1	M1
RCE5C2A272J1 H03	COG (EIA)	100Vdc	2700pF±5%	4.0×3.5	2.5	2.5	A2	DB
RCE5C2A272J1 H03	COG (EIA)	100Vdc	2700pF±5%	4.0×3.5	2.5	5.0	K1	M1
RCE5C2A332J1□□H03□	COG (EIA)	100Vdc	3300pF±5%	4.0×3.5	2.5	2.5	A2	DB
RCE5C2A332J1□□H03□	COG (EIA)	100Vdc	3300pF±5%	4.0×3.5	2.5	5.0	K1	M1
RCE5C2A392J2□□H03□	COG (EIA)	100Vdc	3900pF±5%	5.5×4.0	3.15	2.5	A2	DB
RCE5C2A392J2 H03	COG (EIA)	100Vdc	3900pF±5%	5.5×4.0	3.15	5.0	K1	M1
RCE5C2A472J2 H03	COG (EIA)	100Vdc	4700pF±5%	5.5×4.0	3.15	2.5	A2	DB
RCE5C2A472J2 H03	COG (EIA)	100Vdc	4700pF±5%	5.5×4.0	3.15	5.0	K1	M1
RCE5C2A562J2 H03	COG (EIA)	100Vdc	5600pF±5%	5.5×4.0	3.15	2.5	A2	DB
RCE5C2A562J2 H03	COG (EIA)	100Vdc	5600pF±5%	5.5×4.0	3.15	5.0	K1	M1
RCE5C2A682J2 H03	COG (EIA)	100Vdc	6800pF±5%	5.5×4.0	3.15	2.5	A2	DB
RCE5C2A682J2 H03	COG (EIA)	100Vdc	6800pF±5%	5.5×4.0	3.15	5.0	K1	M1
RCE5C2A822J2 H03	COG (EIA)	100Vdc	8200pF±5%	5.5×4.0	3.15	2.5	A2	DB
RCE5C2A822J2 H03 RCE5C2A103J2 H03	COG (EIA)	100Vdc 100Vdc	8200pF±5% 10000pF±5%	5.5×4.0 5.5×4.0	3.15	5.0 2.5	K1 A2	M1 DB
RCE5C2A103J2 H03	COG (EIA)	100Vdc	10000pF±5%	5.5×4.0	3.15	5.0	K1	M1
RCE5C2E100J2 H03	COG (EIA)	250Vdc	10pF±5%	5.5×4.0	3.15	5.0	K1	M1
RCE5C2E120J2 H03	COG (EIA)	250Vdc	12pF±5%	5.5×4.0	3.15	5.0	K1	M1
RCE5C2E150J2 H03	COG (EIA)	250Vdc	15pF±5%	5.5×4.0	3.15	5.0	K1	M1
RCE5C2E180J2 H03	COG (EIA)	250Vdc	18pF±5%	5.5×4.0	3.15	5.0	K1	M1
RCE5C2E220J2 H03	COG (EIA)	250Vdc	22pF±5%	5.5×4.0	3.15	5.0	K1	M1
RCE5C2E270J2 H03	COG (EIA)	250Vdc	27pF±5%	5.5×4.0	3.15	5.0	K1	M1
RCE5C2E330J2 H03	COG (EIA)	250Vdc	33pF±5%	5.5×4.0	3.15	5.0	K1	M1
RCE5C2E390J2□□H03□	COG (EIA)	250Vdc	39pF±5%	5.5×4.0	3.15	5.0	K1	M1
RCE5C2E470J2 H03	COG (EIA)	250Vdc	47pF±5%	5.5×4.0	3.15	5.0	K1	M1
RCE5C2E560J2□□H03□	COG (EIA)	250Vdc	56pF±5%	5.5×4.0	3.15	5.0	K1	M1
RCE5C2E680J2□□H03□	COG (EIA)	250Vdc	68pF±5%	5.5×4.0	3.15	5.0	K1	M1
RCE5C2E820J2 H03	COG (EIA)	250Vdc	82pF±5%	5.5×4.0	3.15	5.0	K1	M1
RCE5C2E101J2 H03	COG (EIA)	250Vdc	100pF±5%	5.5×4.0	3.15	5.0	K1	M1
RCE5C2E121J2 H03	COG (EIA)	250Vdc	120pF±5%	5.5×4.0	3.15	5.0	K1	M1
RCE5C2E151J2 H03	COG (EIA)	250Vdc	150pF±5%	5.5×4.0	3.15	5.0	K1	M1
RCE5C2E181J2 H03	COG (EIA)	250Vdc	180pF±5%	5.5×4.0	3.15	5.0	K1	M1
RCE5C2E221J2 H03	COG (EIA)	250Vdc	220pF±5%	5.5×4.0	3.15	5.0	K1	M1
RCE5C2E271J2 H03	COG (EIA)	250Vdc	270pF±5%	5.5×4.0	3.15	5.0	K1	M1
RCE5C2E331J2 H03	COG (EIA)	250Vdc	330pF±5%	5.5×4.0	3.15	5.0	K1	M1
RCE5C2E391J2 H03	COG (EIA)	250Vdc	390pF±5%	5.5×4.0	3.15	5.0	K1	M1
RCE5C2E471J2 H03	COG (EIA)	250Vdc 250Vdc	470pF±5%	5.5×4.0	3.15 3.15	5.0 5.0	K1	M1 M1
RCE5C2E561J2 H03 RCE5C2E681J2 H03	COG (EIA)	250Vdc	560pF±5% 680pF±5%	5.5×4.0 5.5×4.0	3.15	5.0	K1 K1	M1
RCE5C2E821J2 H03	COG (EIA)	250Vdc 250Vdc	820pF±5%	5.5×4.0	3.15	5.0	K1	M1
RCE5C2E102J2 H03	COG (EIA)	250Vdc	1000pF±5%	5.5×4.0	3.15	5.0	K1	M1
RCE5C2E122J2 H03	COG (EIA)	250Vdc	1200pF±5%	5.5×4.0	3.15	5.0	K1	M1
RCE5C2E152J2 H03	COG (EIA)	250Vdc	1500pF±5%	5.5×4.0	3.15	5.0	K1	M1
RCE5C2E182J2 H03	COG (EIA)	250Vdc	1800pF±5%	5.5×4.0	3.15	5.0	K1	M1
RCE5C2E222J2 H03	COG (EIA)	250Vdc	2200pF±5%	5.5×4.0	3.15	5.0	K1	M1
RCE5C2E272J2 H03	COG (EIA)	250Vdc	2700pF±5%	5.5×4.0	3.15	5.0	K1	M1
	. ,		· '			l		

Continued from the preceding page. ${f \lambda}$

Continued from the preceding pa	age. 🔰							
Part Number	Temp. Char.	Rated Voltage	Capacitance	Dimensions LxW (mm)	Dimension T (mm)	Lead Space F (mm)	Lead Style Code Bulk	Lead Style Code Taping
RCE5C2E332J2□□H03□	COG (EIA)	250Vdc	3300pF±5%	5.5×4.0	3.15	5.0	K1	M1
RCE5C2E392J2□□H03□	COG (EIA)	250Vdc	3900pF±5%	5.5×4.0	3.15	5.0	K1	M1
RCE5C2E472J2 H03	COG (EIA)	250Vdc	4700pF±5%	5.5×4.0	3.15	5.0	K1	M1
RCE5C2E562J2 H03	COG (EIA)	250Vdc	5600pF±5%	5.5×4.0	3.15	5.0	K1	M1
RCE5C2E682J2 H03	COG (EIA)	250Vdc	6800pF±5%	5.5×4.0	3.15	5.0	K1	M1
RCE5C2E822J2 H03	COG (EIA)	250Vdc	8200pF±5%	5.5×4.0	3.15	5.0	K1	M1
RCE5C2E103J2 H03	COG (EIA)	250Vdc	10000pF±5%	5.5×4.0	3.15	5.0	K1	M1
RCE5C2E123J2 H03	COG (EIA)	250Vdc	12000pF±5%	5.5×4.0	3.15	5.0	K1	M1
RCE5C2E153J2 H03	COG (EIA)	250Vdc	15000pF±5%	5.5×4.0	3.15	5.0	K1	M1
RCE5C2J100J2 H03	COG (EIA)	630Vdc	10pF±5%	5.5×4.0	3.15	5.0	K1	M1
RCE5C2J120J2 H03	COG (EIA)	630Vdc	12pF±5%	5.5×4.0	3.15	5.0	K1	M1
RCE5C2J150J2 H03	COG (EIA)	630Vdc	15pF±5%	5.5×4.0	3.15	5.0	K1	M1
RCE5C2J180J2□□H03□	COG (EIA)	630Vdc	18pF±5%	5.5×4.0	3.15	5.0	K1	M1
RCE5C2J220J2□□H03□	COG (EIA)	630Vdc	22pF±5%	5.5×4.0	3.15	5.0	K1	M1
RCE5C2J270J2 H03	COG (EIA)	630Vdc	27pF±5%	5.5×4.0	3.15	5.0	K1	M1
RCE5C2J330J2 H03	COG (EIA)	630Vdc	33pF±5%	5.5×4.0	3.15	5.0	K1	M1
RCE5C2J390J2 H03	COG (EIA)	630Vdc	39pF±5%	5.5×4.0	3.15	5.0	K1	M1
RCE5C2J470J2 H03	COG (EIA)	630Vdc	47pF±5%	5.5×4.0	3.15	5.0	K1	M1
RCE5C2J560J2 H03	COG (EIA)	630Vdc	56pF±5%	5.5×4.0	3.15	5.0	K1	M1
RCE5C2J680J2□□H03□	COG (EIA)	630Vdc	68pF±5%	5.5×4.0	3.15	5.0	K1	M1
RCE5C2J820J2□□H03□	COG (EIA)	630Vdc	82pF±5%	5.5×4.0	3.15	5.0	K1	M1
RCE5C2J101J2 H03	COG (EIA)	630Vdc	100pF±5%	5.5×4.0	3.15	5.0	K1	M1
RCE5C2J121J2 H03	COG (EIA)	630Vdc	120pF±5%	5.5×4.0	3.15	5.0	K1	M1
RCE5C2J151J2 H03	COG (EIA)	630Vdc	150pF±5%	5.5×4.0	3.15	5.0	K1	M1
RCE5C2J181J2□□H03□	COG (EIA)	630Vdc	180pF±5%	5.5×4.0	3.15	5.0	K1	M1
RCE5C2J221J2□□H03□	COG (EIA)	630Vdc	220pF±5%	5.5×4.0	3.15	5.0	K1	M1
RCE5C2J271J2□□H03□	COG (EIA)	630Vdc	270pF±5%	5.5×4.0	3.15	5.0	K1	M1
RCE5C2J331J2 H03	COG (EIA)	630Vdc	330pF±5%	5.5×4.0	3.15	5.0	K1	M1
RCE5C2J391J2 H03	COG (EIA)	630Vdc	390pF±5%	5.5×4.0	3.15	5.0	K1	M1
RCE5C2J471J2 H03	COG (EIA)	630Vdc	470pF±5%	5.5×4.0	3.15	5.0	K1	M1
RCE5C2J561J2□□H03□	COG (EIA)	630Vdc	560pF±5%	5.5×4.0	3.15	5.0	K1	M1
RCE5C2J681J2□□H03□	COG (EIA)	630Vdc	680pF±5%	5.5×4.0	3.15	5.0	K1	M1
RCE5C2J821J2□□H03□	COG (EIA)	630Vdc	820pF±5%	5.5×4.0	3.15	5.0	K1	M1
RCE5C2J102J2 H03	COG (EIA)	630Vdc	1000pF±5%	5.5×4.0	3.15	5.0	K1	M1
RCE5C2J122J2□□H03□	COG (EIA)	630Vdc	1200pF±5%	5.5×4.0	3.15	5.0	K1	M1
RCE5C2J152J2□□H03□	COG (EIA)	630Vdc	1500pF±5%	5.5×4.0	3.15	5.0	K1	M1
RCE5C2J182J2 H03	COG (EIA)	630Vdc	1800pF±5%	5.5×4.0	3.15	5.0	K1	M1
RCE5C2J222J2 H03	COG (EIA)	630Vdc	2200pF±5%	5.5×4.0	3.15	5.0	K1	M1
RCE5C2J272J2 H03	COG (EIA)	630Vdc	2700pF±5%	5.5×4.0	3.15	5.0	K1	M1
RCE5C2J332J2 H03	COG (EIA)	630Vdc	3300pF±5%	5.5×4.0	3.15	5.0	K1	M1
RCE5C3A100J2 H03	COG (EIA)	1000Vdc	10pF±5%	5.5×4.0	3.15	5.0	K1	M1
RCE5C3A120J2 H03	COG (EIA)	1000Vdc	12pF±5%	5.5×4.0	3.15	5.0	K1	M1
RCE5C3A150J2 H03	COG (EIA)	1000Vdc	15pF±5%	5.5×4.0	3.15	5.0	K1	M1
RCE5C3A180J2 H03	COG (EIA)	1000Vdc	18pF±5%	5.5×4.0	3.15	5.0	K1	M1
RCE5C3A220J2 H03	COG (EIA)	1000Vdc	22pF±5%	5.5×4.0	3.15	5.0	K1	M1
RCE5C3A270J2 H03	COG (EIA)	1000Vdc	27pF±5%	5.5×4.0	3.15	5.0	K1	M1
RCE5C3A330J2 H03	COG (EIA)	1000Vdc	33pF±5%	5.5×4.0	3.15	5.0	K1	M1
RCE5C3A390J2 H03	COG (EIA)	1000Vdc	39pF±5%	5.5×4.0	3.15	5.0	K1	M1
RCE5C3A470J2 H03	COG (EIA)	1000Vdc	47pF±5%	5.5×4.0	3.15	5.0	K1	M1
RCE5C3A560J2 H03	COG (EIA)	1000Vdc	56pF±5%	5.5×4.0	3.15	5.0	K1	M1
RCE5C3A680J2 H03	COG (EIA)	1000Vdc	68pF±5%	5.5×4.0	3.15	5.0	K1	M1
RCE5C3A820J2 H03	COG (EIA)	1000Vdc	82pF±5%	5.5×4.0	3.15	5.0	K1	M1
RCE5C3A101J2 H03	COG (EIA)	1000Vdc	100pF±5%	5.5×4.0	3.15	5.0	K1	M1
RCE5C3A121J2 H03	COG (EIA)	1000Vdc	120pF±5%	5.5×4.0	3.15	5.0	K1	M1
RCE5C3A151J2 H03	COG (EIA)	1000Vdc	150pF±5%	5.5×4.0	3.15	5.0	K1	M1
RCE5C3A181J2 H03	COG (EIA)	1000Vdc	180pF±5%	5.5×4.0	3.15	5.0	K1	M1
RCE5C3A221J2 H03	COG (EIA)	1000Vdc	220pF±5%	5.5×4.0	3.15	5.0	K1	M1

ontinued from the preceding page. 🔌								
Part Number	Temp. Char.	Rated Voltage	Capacitance	Dimensions LxW (mm)	Dimension T (mm)	Lead Space F (mm)	Lead Style Code Bulk	Lead Style Code Taping
RCE5C3A271J2 H03	COG (EIA)	1000Vdc	270pF±5%	5.5×4.0	3.15	5.0	K1	M1
RCE5C3A331J2 H03	COG (EIA)	1000Vdc	330pF±5%	5.5×4.0	3.15	5.0	K1	M1
RCE5C3A391J2□□H03□	COG (EIA)	1000Vdc	390pF±5%	5.5×4.0	3.15	5.0	K1	M1
RCE5C3A471J2 H03	COG (EIA)	1000Vdc	470pF±5%	5.5×4.0	3.15	5.0	K1	M1
RCE5C3A561J2 H03	COG (EIA)	1000Vdc	560pF±5%	5.5×4.0	3.15	5.0	K1	M1
RCE5C3A681J2 H03	COG (EIA)	1000Vdc	680pF±5%	5.5×4.0	3.15	5.0	K1	M1
RCE5C3A821J2 H03	COG (EIA)	1000Vdc	820pF±5%	5.5×4.0	3.15	5.0	K1	M1
RCE5C3A102J2 H03	COG (EIA)	1000Vdc	1000pF±5%	5.5×4.0	3.15	5.0	K1	M1
RCE7U2E101J1 H03	U2J (EIA)	250Vdc	100pF±5%	4.0×3.5	3.15	5.0	K1	M1
RCE7U2E151J1 H03	U2J (EIA)	250Vdc	150pF±5%	4.0×3.5	3.15	5.0	K1	M1
RCE7U2E221J1 H03	U2J (EIA)	250Vdc	220pF±5%	4.0×3.5	3.15	5.0	K1	M1
RCE7U2E331J1 H03	U2J (EIA)	250Vdc	330pF±5%	4.0×3.5	3.15	5.0	K1	M1
RCE7U2E471J1 H03	U2J (EIA)	250Vdc	470pF±5%	4.0×3.5	3.15	5.0	K1	M1
RCE7U2E681J1 H03	U2J (EIA)	250Vdc	680pF±5%	4.0×3.5	3.15	5.0	K1	M1
RCE7U2E102J1 H03	U2J (EIA)	250Vdc	1000pF±5%	4.0×3.5	3.15	5.0	K1	M1
RCE7U2E152J1 H03	U2J (EIA)	250Vdc	1500pF±5%	4.0×3.5	3.15	5.0	K1	M1
RCE7U2E222J1 H03	U2J (EIA)	250Vdc 250Vdc	2200pF±5%	4.0×3.5 4.0×3.5		5.0	K1	M1
	` '	250Vdc 250Vdc	3300pF±5%		3.15	5.0		M1
RCE7U2E332J1 H03	U2J (EIA)			4.0×3.5	3.15		K1	
RCE7U2E472J1 H03 RCE7U2E682J2 H03	U2J (EIA)	250Vdc 250Vdc	4700pF±5%	4.0×3.5 5.5×4.0	3.15 3.15	5.0 5.0	K1 K1	M1 M1
	U2J (EIA)		6800pF±5%					
RCE7U2E103J2 H03	U2J (EIA)	250Vdc	10000pF±5%	5.5×4.0	3.15	5.0	K1	M1
RCE7U2J100J2 H03	U2J (EIA)	630Vdc	10pF±5%	5.5×4.0	3.15	5.0	K1	M1
RCE7U2J150J2 H03	U2J (EIA)	630Vdc	15pF±5%	5.5×4.0	3.15	5.0	K1	M1
RCE7U2J220J2 H03	U2J (EIA)	630Vdc	22pF±5%	5.5×4.0	3.15	5.0	K1	M1
RCE7U2J330J2 H03	U2J (EIA)	630Vdc	33pF±5%	5.5×4.0	3.15	5.0	K1	M1
RCE7U2J470J2 H03	U2J (EIA)	630Vdc	47pF±5%	5.5×4.0	3.15	5.0	K1	M1
RCE7U2J680J2 H03	U2J (EIA)	630Vdc	68pF±5%	5.5×4.0	3.15	5.0	K1	M1
RCE7U2J101J2 H03	U2J (EIA)	630Vdc	100pF±5%	5.5×4.0	3.15	5.0	K1	M1
RCE7U2J151J2 H03	U2J (EIA)	630Vdc	150pF±5%	5.5×4.0	3.15	5.0	K1	M1
RCE7U2J221J2 H03	U2J (EIA)	630Vdc	220pF±5%	5.5×4.0	3.15	5.0	K1	M1
RCE7U2J331J2 H03	U2J (EIA)	630Vdc	330pF±5%	5.5×4.0	3.15	5.0	K1	M1
RCE7U2J471J2 H03	U2J (EIA)	630Vdc	470pF±5%	5.5×4.0	3.15	5.0	K1	M1
RCE7U2J681J2 H03	U2J (EIA)	630Vdc	680pF±5%	5.5×4.0	3.15	5.0	K1	M1
RCE7U2J102J2 H03	U2J (EIA)	630Vdc	1000pF±5%	5.5×4.0	3.15	5.0	K1	M1
RCE7U2J152J2 H03	U2J (EIA)	630Vdc	1500pF±5%	5.5×4.0	3.15	5.0	K1	M1
RCE7U2J222J2 H03	U2J (EIA)	630Vdc	2200pF±5%	5.5×4.0	3.15	5.0	K1	M1
RCE7U2J332J2 H03	U2J (EIA)	630Vdc	3300pF±5%	5.5×4.0	3.15	5.0	K1	M1
RCE7U2J472J2 H03	U2J (EIA)	630Vdc	4700pF±5%	5.5×4.0	3.15	5.0	K1	M1
RCE7U2J682J3 H03	U2J (EIA)	630Vdc	6800pF±5%	5.5×5.0	4.0	5.0	K1	M1
RCE7U2J103J3 H03	U2J (EIA)	630Vdc	10000pF±5%	5.5×5.0	4.0	5.0	K1	M1
RCE7U2J153J4 H03	U2J (EIA)	630Vdc	15000pF±5%	7.5×5.5	4.0	5.0	K1	M1
RCE7U2J223J4 H03	U2J (EIA)	630Vdc	22000pF±5%	7.5×5.5	4.0	5.0	K1	M1
RCE7U2J333J5 H03	U2J (EIA)	630Vdc	33000pF±5%	7.5×8.0	4.0	5.0	B1	E1
RCE7U2J473J5 H03	U2J (EIA)	630Vdc	47000pF±5%	7.5×8.0	4.0	5.0	B1	E1
RCE7U2J943JU H03	U2J (EIA)	630Vdc	94000pF±5%	7.7×13.0	4.0	5.0	B1	E1
RCE7U3A100J2 H03	U2J (EIA)	1000Vdc	10pF±5%	5.5×4.0	3.15	5.0	K1	M1
RCE7U3A150J2 H03	U2J (EIA)	1000Vdc	15pF±5%	5.5×4.0	3.15	5.0	K1	M1
RCE7U3A220J2 H03	U2J (EIA)	1000Vdc	22pF±5%	5.5×4.0	3.15	5.0	K1	M1
RCE7U3A330J2 H03	U2J (EIA)	1000Vdc	33pF±5%	5.5×4.0	3.15	5.0	K1	M1
RCE7U3A470J2 H03	U2J (EIA)	1000Vdc	47pF±5%	5.5×4.0	3.15	5.0	K1	M1
RCE7U3A680J2□□H03□	U2J (EIA)	1000Vdc	68pF±5%	5.5×4.0	3.15	5.0	K1	M1
RCE7U3A101J2□□H03□	U2J (EIA)	1000Vdc	100pF±5%	5.5×4.0	3.15	5.0	K1	M1
RCE7U3A151J2□□H03□	U2J (EIA)	1000Vdc	150pF±5%	5.5×4.0	3.15	5.0	K1	M1
RCE7U3A221J2□□H03□	U2J (EIA)	1000Vdc	220pF±5%	5.5×4.0	3.15	5.0	K1	M1
RCE7U3A331J2 H03	U2J (EIA)	1000Vdc	330pF±5%	5.5×4.0	3.15	5.0	K1	M1
RCE7U3A471J2□□H03□	U2J (EIA)	1000Vdc	470pF±5%	5.5×4.0	3.15	5.0	K1	M1
RCE7U3A681J2□□H03□	U2J (EIA)	1000Vdc	680pF±5%	5.5×4.0	3.15	5.0	K1	M1
						0 11	nued on the fol	

Part Number	Temp. Char.	Rated Voltage	Capacitance	Dimensions LxW (mm)	Dimension T (mm)	Lead Space F (mm)	Lead Style Code Bulk	Lead Style Code Taping
RCE7U3A102J2□□H03□	U2J (EIA)	1000Vdc	1000pF±5%	5.5×4.0	3.15	5.0	K1	M1
RCE7U3A152J3□□H03□	U2J (EIA)	1000Vdc	1500pF±5%	5.5×5.0	4.0	5.0	K1	M1
RCE7U3A222J3□□H03□	U2J (EIA)	1000Vdc	2200pF±5%	5.5×5.0	4.0	5.0	K1	M1
RCE7U3A332J4□□H03□	U2J (EIA)	1000Vdc	3300pF±5%	7.5×5.5	4.0	5.0	K1	M1
RCE7U3A472J4□□H03□	U2J (EIA)	1000Vdc	4700pF±5%	7.5×5.5	4.0	5.0	K1	M1
RCE7U3A682J5 H03	U2J (EIA)	1000Vdc	6800pF±5%	7.5×8.0	4.0	5.0	B1	E1
RCE7U3A103J5 H03	U2J (EIA)	1000Vdc	10000pF±5%	7.5×8.0	4.0	5.0	B1	E1
RCE7U3A203JU□□H03□	U2J (EIA)	1000Vdc	20000pF±5%	7.7×13.0	4.0	5.0	B1	E1

Two blank columns are filled with the lead style code. Please refer to the 3 columns on the right for the appropriate code.

Part Number	Temp. Char.	Rated Voltage	Capacitance	Dimensions LxW (mm)	Dimension T (mm)	Lead Space F (mm)	Lead Style Code Bulk	Lead Style Code Taping
RCER71E104K0□□H03□	X7R (EIA)	25Vdc	0.1µF±10%	3.6×3.5	2.5	2.5	A2	DB
RCER71E104K0 H03	X7R (EIA)	25Vdc	0.1µF±10%	3.6×3.5	2.5	5.0	K1	M1
RCER71E154K0□□H03□	X7R (EIA)	25Vdc	0.15µF±10%	3.6×3.5	2.5	2.5	A2	DB
RCER71E154K0□□H03□	X7R (EIA)	25Vdc	0.15µF±10%	3.6×3.5	2.5	5.0	K1	M1
RCER71E224K0□□H03□	X7R (EIA)	25Vdc	0.22µF±10%	3.6×3.5	2.5	2.5	A2	DB
RCER71E224K0□□H03□	X7R (EIA)	25Vdc	0.22µF±10%	3.6×3.5	2.5	5.0	K1	M1
RCER71E334K1□□H03□	X7R (EIA)	25Vdc	0.33µF±10%	4.0×3.5	2.5	2.5	A2	DB
RCER71E334K1□□H03□	X7R (EIA)	25Vdc	0.33µF±10%	4.0×3.5	2.5	5.0	K1	M1
RCER71E474K1□□H03□	X7R (EIA)	25Vdc	0.47µF±10%	4.0×3.5	2.5	2.5	A2	DB
RCER71E474K1□□H03□	X7R (EIA)	25Vdc	0.47µF±10%	4.0×3.5	2.5	5.0	K1	M1
RCER71E684K1□□H03□	X7R (EIA)	25Vdc	0.68µF±10%	4.0×3.5	2.5	2.5	A2	DB
RCER71E684K1□□H03□	X7R (EIA)	25Vdc	0.68µF±10%	4.0×3.5	2.5	5.0	K1	M1
RCER71E105K1□□H03□	X7R (EIA)	25Vdc	1.0µF±10%	4.0×3.5	2.5	2.5	A2	DB
RCER71E105K1□□H03□	X7R (EIA)	25Vdc	1.0µF±10%	4.0×3.5	2.5	5.0	K1	M1
RCER71E155K2□□H03□	X7R (EIA)	25Vdc	1.5µF±10%	5.5×4.0	3.15	2.5	A2	DB
RCER71E155K2□□H03□	X7R (EIA)	25Vdc	1.5µF±10%	5.5×4.0	3.15	5.0	K1	M1
RCER71E225K2□□H03□	X7R (EIA)	25Vdc	2.2µF±10%	5.5×4.0	3.15	2.5	A2	DB
RCER71E225K2□□H03□	X7R (EIA)	25Vdc	2.2µF±10%	5.5×4.0	3.15	5.0	K1	M1
RCER71E335K2□□H03□	X7R (EIA)	25Vdc	3.3µF±10%	5.5×4.0	3.15	2.5	A2	DB
RCER71E335K2□□H03□	X7R (EIA)	25Vdc	3.3µF±10%	5.5×4.0	3.15	5.0	K1	M1
RCER71E475K2□□H03□	X7R (EIA)	25Vdc	4.7µF±10%	5.5×4.0	3.15	2.5	A2	DB
RCER71E475K2□□H03□	X7R (EIA)	25Vdc	4.7µF±10%	5.5×4.0	3.15	5.0	K1	M1
RCER71E106K3□□H03□	X7R (EIA)	25Vdc	10μF±10%	5.5×5.0	4.0	2.5	A2	DB
RCER71E106K3□□H03□	X7R (EIA)	25Vdc	10μF±10%	5.5×5.0	4.0	5.0	K1	M1
RCER71E226MW□□H03□	X7R (EIA)	25Vdc	22μF±20%	5.5×7.5	4.0	5.0	K1	M1
RCER71H221K0□□H03□	X7R (EIA)	50Vdc	220pF±10%	3.6×3.5	2.5	2.5	A2	DB
RCER71H221K0□□H03□	X7R (EIA)	50Vdc	220pF±10%	3.6×3.5	2.5	5.0	K1	M1
RCER71H331K0□□H03□	X7R (EIA)	50Vdc	330pF±10%	3.6×3.5	2.5	2.5	A2	DB
RCER71H331K0□□H03□	X7R (EIA)	50Vdc	330pF±10%	3.6×3.5	2.5	5.0	K1	M1
RCER71H471K0□□H03□	X7R (EIA)	50Vdc	470pF±10%	3.6×3.5	2.5	2.5	A2	DB
RCER71H471K0 H03	X7R (EIA)	50Vdc	470pF±10%	3.6×3.5	2.5	5.0	K1	M1
RCER71H681K0 H03	X7R (EIA)	50Vdc	680pF±10%	3.6×3.5	2.5	2.5	A2	DB
RCER71H681K0 H03	X7R (EIA)	50Vdc	680pF±10%	3.6×3.5	2.5	5.0	K1	M1
RCER71H102K0 H03	X7R (EIA)	50Vdc	1000pF±10%	3.6×3.5	2.5	2.5	A2	DB
RCER71H102K0 H03	X7R (EIA)	50Vdc	1000pF±10%	3.6×3.5	2.5	5.0	K1	M1
RCER71H152K0 H03	X7R (EIA)	50Vdc	1500pF±10%	3.6×3.5	2.5	2.5	A2	DB
RCER71H152K0 H03	X7R (EIA)	50Vdc	1500pF±10%	3.6×3.5	2.5	5.0	K1	M1
RCER71H222K0 H03	X7R (EIA)	50Vdc	2200pF±10%	3.6×3.5	2.5	2.5	A2	DB
RCER71H222K0 H03	X7R (EIA)	50Vdc	2200pF±10%	3.6×3.5	2.5	5.0	K1	M1
RCER71H332K0 H03	X7R (EIA)	50Vdc	3300pF±10%	3.6×3.5	2.5	2.5	A2	DB
RCER71H332K0 H03	X7R (EIA)	50Vdc	3300pF±10%	3.6×3.5	2.5	5.0	K1	M1
RCER71H472K0□□H03□	X7R (EIA)	50Vdc	4700pF±10%	3.6×3.5	2.5	2.5	A2	DB

The last blank column is filled with the packaging code. (B: bulk, A: ammo pack) $\,$

Continued from the preceding pa	.ge. 🌂							
Part Number	Temp. Char.	Rated Voltage	Capacitance	Dimensions LxW (mm)	Dimension T (mm)	Lead Space F (mm)	Lead Style Code Bulk	Lead Style Code Taping
RCER71H472K0□□H03□	X7R (EIA)	50Vdc	4700pF±10%	3.6×3.5	2.5	5.0	K1	M1
RCER71H682K0 H03	X7R (EIA)	50Vdc	6800pF±10%	3.6×3.5	2.5	2.5	A2	DB
RCER71H682K0 H03	X7R (EIA)	50Vdc	6800pF±10%	3.6×3.5	2.5	5.0	K1	M1
RCER71H103K0 H03	X7R (EIA)	50Vdc	10000pF±10%	3.6×3.5	2.5	2.5	A2	DB
RCER71H103K0 H03	X7R (EIA)	50Vdc	10000pF±10%	3.6×3.5	2.5	5.0	K1	M1
RCER71H153K0 H03	X7R (EIA)	50Vdc	15000pF±10%	3.6×3.5	2.5	2.5	A2	DB
RCER71H153K0 H03	X7R (EIA)	50Vdc	15000pF±10%	3.6×3.5	2.5	5.0	K1	M1
RCER71H133K0 H03	X7R (EIA)	50Vdc	22000pF±10%	3.6×3.5	2.5	2.5	A2	DB
RCER71H223K0 H03	X7R (EIA)	50Vdc	22000pF±10%	3.6×3.5	2.5	5.0	K1	M1
RCER71H333K0 H03	X7R (EIA)	50Vdc	33000pF±10%	3.6×3.5	2.5	2.5	A2	DB
RCER71H333K0 H03	X7R (EIA)	50Vdc	33000pF±10%	3.6×3.5	2.5	5.0	K1	M1
RCER71H473K0 H03	X7R (EIA)	50Vdc	47000pF±10%	3.6×3.5	2.5	2.5	A2	DB
RCER71H473K0 H03	X7R (EIA)	50Vdc	47000pF±10%	3.6×3.5	2.5	5.0	K1	M1
RCER71H683K0 H03	X7R (EIA)	50Vdc	68000pF±10%	3.6×3.5	2.5	2.5	A2	DB
RCER71H683K0 H03	X7R (EIA)	50Vdc	68000pF±10%	3.6×3.5	2.5	5.0	K1	M1
RCER71H104K0 H03	X7R (EIA)	50Vdc	0.10µF±10%	3.6×3.5	2.5	2.5	A2	DB
RCER71H104K0 H03	X7R (EIA)	50Vdc	0.10µF±10%	3.6×3.5	2.5	5.0	K1	M1
RCER71H154K1 H03	X7R (EIA)	50Vdc	0.15µF±10%	4.0×3.5	2.5	2.5	A2	DB
RCER71H154K1 H03	X7R (EIA)	50Vdc	0.15µF±10%	4.0×3.5	2.5	5.0	K1	M1
RCER71H134K1 H03	X7R (EIA)	50Vdc	0.13µF±10%	4.0×3.5	2.5	2.5	A2	DB
RCER71H224K1 H03	X7R (EIA)	50Vdc	0.22µF±10%	4.0×3.5	2.5	5.0	K1	M1
RCER71H334K1 H03	X7R (EIA)	50Vdc	0.33µF±10%	4.0×3.5	2.5	2.5	A2	DB
RCER71H334K1 H03	X7R (EIA)	50Vdc	0.33µF±10%	4.0×3.5	2.5	5.0	K1	M1
RCER71H474K1 H03	X7R (EIA)	50Vdc	0.47µF±10%	4.0×3.5	2.5	2.5	A2	DB
RCER71H474K1 H03	X7R (EIA)	50Vdc	0.47µF±10%	4.0×3.5	2.5	5.0	K1	M1
RCER71H684K2□□H03□	X7R (EIA)	50Vdc	0.68µF±10%	5.5×4.0	3.15	2.5	A2	DB
RCER71H684K2□□H03□	X7R (EIA)	50Vdc	0.68µF±10%	5.5×4.0	3.15	5.0	K1	M1
RCEC71H105K1□□H03□	X7S (EIA)	50Vdc	1.0µF±10%	4.0×3.5	2.5	2.5	A2	DB
RCEC71H105K1□□H03□	X7S (EIA)	50Vdc	1.0µF±10%	4.0×3.5	2.5	5.0	K1	M1
RCER71H105K2□□H03□	X7R (EIA)	50Vdc	1.0µF±10%	5.5×4.0	3.15	2.5	A2	DB
RCER71H105K2□□H03□	X7R (EIA)	50Vdc	1.0µF±10%	5.5×4.0	3.15	5.0	K1	M1
RCER71H155K2□□H03□	X7R (EIA)	50Vdc	1.5µF±10%	5.5×4.0	3.15	2.5	A2	DB
RCER71H155K2□□H03□	X7R (EIA)	50Vdc	1.5µF±10%	5.5×4.0	3.15	5.0	K1	M1
RCER71H225K2□□H03□	X7R (EIA)	50Vdc	2.2µF±10%	5.5×4.0	3.15	2.5	A2	DB
RCER71H225K2□□H03□	X7R (EIA)	50Vdc	2.2µF±10%	5.5×4.0	3.15	5.0	K1	M1
RCER71H335K3□□H03□	X7R (EIA)	50Vdc	3.3µF±10%	5.5×5.0	4.0	2.5	A2	DB
RCER71H335K3□□H03□	X7R (EIA)	50Vdc	3.3µF±10%	5.5×5.0	4.0	5.0	K1	M1
RCEC71H475K2□□H03□	X7S (EIA)	50Vdc	4.7µF±10%	5.5×4.0	3.15	2.5	A2	DB
RCEC71H475K2□□H03□	X7S (EIA)	50Vdc	4.7µF±10%	5.5×4.0	3.15	5.0	K1	M1
RCER71H475K3□□H03□	X7R (EIA)	50Vdc	4.7µF±10%	5.5×5.0	4.0	2.5	A2	DB
RCER71H475K3□□H03□	X7R (EIA)	50Vdc	4.7µF±10%	5.5×5.0	4.0	5.0	K1	M1
RCEC71H106K3□□H03□	X7S (EIA)	50Vdc	10μF±10%	5.5×5.0	4.0	2.5	A2	DB
RCEC71H106K3□□H03□	X7S (EIA)	50Vdc	10μF±10%	5.5×5.0	4.0	5.0	K1	M1
RCER71H106MW□□H03□	X7R (EIA)	50Vdc	10μF±20%	5.5×7.5	4.0	5.0	K1	M1
RCEC71H226MW□□H03□	X7S (EIA)	50Vdc	22μF±20%	5.5×7.5	4.0	5.0	K1	M1
RCER72A221K0□□H03□	X7R (EIA)	100Vdc	220pF±10%	3.6×3.5	2.5	2.5	A2	DB
RCER72A221K0□□H03□	X7R (EIA)	100Vdc	220pF±10%	3.6×3.5	2.5	5.0	K1	M1
RCER72A331K0□□H03□	X7R (EIA)	100Vdc	330pF±10%	3.6×3.5	2.5	2.5	A2	DB
RCER72A331K0 H03	X7R (EIA)	100Vdc	330pF±10%	3.6×3.5	2.5	5.0	K1	M1
RCER72A471K0 H03	X7R (EIA)	100Vdc	470pF±10%	3.6×3.5	2.5	2.5	A2	DB
RCER72A471K0 H03	X7R (EIA)	100Vdc	470pF±10%	3.6×3.5	2.5	5.0	K1	M1
RCER72A681K0 H03	X7R (EIA)	100Vdc	680pF±10%	3.6×3.5	2.5	2.5	A2	DB
RCER72A681K0 H03	X7R (EIA)	100Vdc	680pF±10%	3.6×3.5	2.5	5.0	K1	M1
RCER72A102K0 H03	X7R (EIA)	100Vdc	1000pF±10%	3.6×3.5	2.5	2.5	A2	DB
RCER72A102K0 H03	X7R (EIA)	100Vdc	1000pF±10%	3.6×3.5	2.5	5.0	K1	M1
RCER72A152K0 H03	X7R (EIA)	100Vdc	1500pF±10%	3.6×3.5	2.5	2.5	A2	DB M1
RCER72A152K0□□H03□	X7R (EIA)	100Vdc	1500pF±10%	3.6×3.5	2.5	5.0	K1	M1

Continued from the preceding page. ${f \lambda}$

Continued from the preceding pa	ige. 🔰							
Part Number	Temp.	Rated	Capacitance	Dimensions LxW	Dimension T	Lead Space F	Lead Style Code	Lead Style Code
	Char.	Voltage		(mm)	(mm)	(mm)	Bulk	Taping
RCER72A222K0□□H03□	X7R (EIA)	100Vdc	2200pF±10%	3.6×3.5	2.5	2.5	A2	DB
RCER72A222K0□□H03□	X7R (EIA)	100Vdc	2200pF±10%	3.6×3.5	2.5	5.0	K1	M1
RCER72A332K0 H03	X7R (EIA)	100Vdc	3300pF±10%	3.6×3.5	2.5	2.5	A2	DB
RCER72A332K0□□H03□	X7R (EIA)	100Vdc	3300pF±10%	3.6×3.5	2.5	5.0	K1	M1
RCER72A472K0 H03	X7R (EIA)	100Vdc	4700pF±10%	3.6×3.5	2.5	2.5	A2	DB
RCER72A472K0 H03	X7R (EIA)	100Vdc	4700pF±10%	3.6×3.5	2.5	5.0	K1	M1
RCER72A682K0 H03	X7R (EIA)	100Vdc	6800pF±10%	3.6×3.5	2.5	2.5	A2	DB
RCER72A682K0 H03	X7R (EIA)	100Vdc	6800pF±10%	3.6×3.5	2.5	5.0	K1	M1
RCER72A103K0 H03	X7R (EIA)	100Vdc	10000pF±10%	3.6×3.5	2.5	2.5	A2	DB
RCER72A103K0 H03	X7R (EIA)	100Vdc	10000pF±10%	3.6×3.5	2.5	5.0	K1	M1
RCER72A153K0 H03	X7R (EIA)	100Vdc	15000pF±10%	3.6×3.5	2.5	2.5	A2	DB M1
RCER72A153K0 H03	X7R (EIA)	100Vdc	15000pF±10%	3.6×3.5		5.0 2.5	K1	M1 DB
RCER72A223K0□□H03□ RCER72A223K0□□H03□	X7R (EIA) X7R (EIA)	100Vdc 100Vdc	22000pF±10% 22000pF±10%	3.6×3.5 3.6×3.5	2.5	5.0	A2 K1	M1
RCER72A333K1 H03	X7R (EIA)	100Vdc	33000pF±10%	4.0×3.5	2.5	2.5	A2	DB
RCER72A333K1 H03	X7R (EIA)	100Vdc	33000pF±10%	4.0×3.5	2.5	5.0	K1	M1
RCER72A473K1 H03	X7R (EIA)	100Vdc	47000pF±10%	4.0×3.5 4.0×3.5	2.5	2.5	A2	DB
RCER72A473K1 H03	X7R (EIA)	100Vdc	47000pF±10%	4.0×3.5	2.5	5.0	K1	M1
RCER72A473K1	X7R (EIA)	100Vdc	68000pF±10%	4.0×3.5 4.0×3.5	2.5	2.5	A2	DB
RCER72A683K1 H03	X7R (EIA)	100Vdc	68000pF±10%	4.0×3.5	2.5	5.0	K1	M1
RCER72A104K1 H03	X7R (EIA)	100Vdc	0.10µF±10%	4.0×3.5	2.5	2.5	A2	DB
RCER72A104K1 H03	X7R (EIA)	100Vdc	0.10µF±10%	4.0×3.5	2.5	5.0	K1	M1
RCER72A154K2 H03	X7R (EIA)	100Vdc	0.15µF±10%	5.5×4.0	3.15	2.5	A2	DB
RCER72A154K2□□H03□	X7R (EIA)	100Vdc	0.15µF±10%	5.5×4.0	3.15	5.0	K1	M1
RCER72A224K2□□H03□	X7R (EIA)	100Vdc	0.22µF±10%	5.5×4.0	3.15	2.5	A2	DB
RCER72A224K2□□H03□	X7R (EIA)	100Vdc	0.22µF±10%	5.5×4.0	3.15	5.0	K1	M1
RCER72A334K1□□H03□	X7R (EIA)	100Vdc	0.33µF±10%	4.0×3.5	2.5	2.5	A2	DB
RCER72A334K1□□H03□	X7R (EIA)	100Vdc	0.33µF±10%	4.0×3.5	2.5	5.0	K1	M1
RCER72A474K2□□H03□	X7R (EIA)	100Vdc	0.47µF±10%	5.5×4.0	3.15	2.5	A2	DB
RCER72A474K2□□H03□	X7R (EIA)	100Vdc	0.47µF±10%	5.5×4.0	3.15	5.0	K1	M1
RCER72A684K2□□H03□	X7R (EIA)	100Vdc	0.68µF±10%	5.5×4.0	3.15	2.5	A2	DB
RCER72A684K2□□H03□	X7R (EIA)	100Vdc	0.68µF±10%	5.5×4.0	3.15	5.0	K1	M1
RCER72A105K2□□H03□	X7R (EIA)	100Vdc	1.0µF±10%	5.5×4.0	3.15	2.5	A2	DB
RCER72A105K2□□H03□	X7R (EIA)	100Vdc	1.0µF±10%	5.5×4.0	3.15	5.0	K1	M1
RCEC72A155K3□□H03□	X7S (EIA)	100Vdc	1.5µF±10%	5.5×5.0	4.0	2.5	A2	DB
RCEC72A155K3□□H03□	X7S (EIA)	100Vdc	1.5µF±10%	5.5×5.0	4.0	5.0	K1	M1
RCEC72A225K3□□H03□	X7S (EIA)	100Vdc	2.2µF±10%	5.5×5.0	4.0	2.5	A2	DB
RCEC72A225K3□□H03□	X7S (EIA)	100Vdc	2.2µF±10%	5.5×5.0	4.0	5.0	K1	M1
RCEC72A475MW□□H03□	X7S (EIA)	100Vdc	4.7µF±20%	5.5×7.5	4.0	5.0	K1	M1
RCER72E102K1□□H03□	X7R (EIA)	250Vdc	1000pF±10%	4.0×3.5	3.15	5.0	K1	M1
RCER72E152K1 H03	X7R (EIA)	250Vdc	1500pF±10%	4.0×3.5	3.15	5.0	K1	M1
RCER72E222K1 H03	X7R (EIA)	250Vdc	2200pF±10%	4.0×3.5	3.15	5.0	K1	M1
RCER72E332K1 H03	X7R (EIA)	250Vdc	3300pF±10%	4.0×3.5	3.15	5.0	K1	M1
RCER72E472K1 H03	X7R (EIA)	250Vdc	4700pF±10%	4.0×3.5	3.15	5.0	K1	M1
RCER72E682K1 H03	X7R (EIA)	250Vdc	6800pF±10%	4.0×3.5	3.15	5.0	K1	M1
RCER72E103K1 H03	X7R (EIA)	250Vdc	10000pF±10%	4.0×3.5	3.15	5.0	K1	M1
RCER72E153K1 H03	X7R (EIA)	250Vdc	15000pF±10%	4.0×3.5	3.15	5.0	K1	M1
RCER72E223K1 H03	X7R (EIA)	250Vdc	22000pF±10%	4.0×3.5	3.15	5.0	K1	M1
RCER72E333K2 H03	X7R (EIA)	250Vdc	33000pF±10%	5.5×4.0	3.15	5.0	K1	M1
RCER72E473K2 H03	X7R (EIA)	250Vdc	47000pF±10%	5.5×4.0	3.15	5.0	K1	M1
RCER72E683K2 H03	X7R (EIA)	250Vdc 250Vdc	68000pF±10%	5.5×4.0	3.15 3.15	5.0	K1 K1	M1 M1
RCER72E104K2 H03 RCER72E154K3 H03	X7R (EIA) X7R (EIA)	250Vdc 250Vdc	0.10μF±10% 0.15μF±10%	5.5×4.0 5.5×5.0	4.0	5.0	K1	M1
RCER72E134K3 H03	X7R (EIA)	250Vdc	0.15μF±10% 0.22μF±10%	5.5×5.0	4.0	5.0	K1	M1
RCER72E334K4 H03	X7R (EIA)	250Vdc	0.22μF±10% 0.33μF±10%	7.5×5.5	4.0	5.0	K1	M1
RCER72E474K4 H03	X7R (EIA)	250Vdc	0.47µF±10%	7.5×5.5	4.0	5.0	K1	M1
RCER72E684K5 - H03	X7R (EIA)	250Vdc	0.47μ1±10% 0.68μF±10%	7.5×7.5	4.0	5.0	B1	E1
	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	200 440	5.55µi ±1070	7.5~7.5	7.0	3.0		

Continued from the preceding page.

Continued from the preceding pa	.ge. 🐴							
Part Number	Temp. Char.	Rated Voltage	Capacitance	Dimensions LxW (mm)	Dimension T (mm)	Lead Space F (mm)	Lead Style Code Bulk	Lead Style Code Taping
RCER72E105K5 H03	X7R (EIA)	250Vdc	1.0µF±10%	7.5×7.5	4.0	5.0	B1	E1
RCER72E225MU□□H03□	X7R (EIA)	250Vdc	2.2µF±20%	7.5×12.5	4.0	5.0	B1	E1
RCER72J102K2□□H03□	X7R (EIA)	630Vdc	1000pF±10%	5.5×4.0	3.15	5.0	K1	M1
RCER72J152K2□□H03□	X7R (EIA)	630Vdc	1500pF±10%	5.5×4.0	3.15	5.0	K1	M1
RCER72J222K2□□H03□	X7R (EIA)	630Vdc	2200pF±10%	5.5×4.0	3.15	5.0	K1	M1
RCER72J332K2 H03	X7R (EIA)	630Vdc	3300pF±10%	5.5×4.0	3.15	5.0	K1	M1
RCER72J472K2□□H03□	X7R (EIA)	630Vdc	4700pF±10%	5.5×4.0	3.15	5.0	K1	M1
RCER72J682K2□□H03□	X7R (EIA)	630Vdc	6800pF±10%	5.5×4.0	3.15	5.0	K1	M1
RCER72J103K2□□H03□	X7R (EIA)	630Vdc	10000pF±10%	5.5×4.0	3.15	5.0	K1	M1
RCER72J153K2□□H03□	X7R (EIA)	630Vdc	15000pF±10%	5.5×4.0	3.15	5.0	K1	M1
RCER72J223K2□□H03□	X7R (EIA)	630Vdc	22000pF±10%	5.5×4.0	3.15	5.0	K1	M1
RCER72J333K3□□H03□	X7R (EIA)	630Vdc	33000pF±10%	5.5×5.0	4.0	5.0	K1	M1
RCER72J473K3□□H03□	X7R (EIA)	630Vdc	47000pF±10%	5.5×5.0	4.0	5.0	K1	M1
RCER72J683K4□□H03□	X7R (EIA)	630Vdc	68000pF±10%	7.5×5.5	4.0	5.0	K1	M1
RCER72J104K4□□H03□	X7R (EIA)	630Vdc	0.10µF±10%	7.5×5.5	4.0	5.0	K1	M1
RCER72J154K5□□H03□	X7R (EIA)	630Vdc	0.15µF±10%	7.5×8.0	4.0	5.0	B1	E1
RCER72J224K5□□H03□	X7R (EIA)	630Vdc	0.22µF±10%	7.5×8.0	4.0	5.0	B1	E1
RCER72J474MU□□H03□	X7R (EIA)	630Vdc	0.47µF±20%	7.7×13.0	4.0	5.0	B1	E1
RCER73A102K2□□H03□	X7R (EIA)	1000Vdc	1000pF±10%	5.5×4.0	3.15	5.0	K1	M1
RCER73A152K2□□H03□	X7R (EIA)	1000Vdc	1500pF±10%	5.5×4.0	3.15	5.0	K1	M1
RCER73A222K2□□H03□	X7R (EIA)	1000Vdc	2200pF±10%	5.5×4.0	3.15	5.0	K1	M1
RCER73A332K2□□H03□	X7R (EIA)	1000Vdc	3300pF±10%	5.5×4.0	3.15	5.0	K1	M1
RCER73A472K2□□H03□	X7R (EIA)	1000Vdc	4700pF±10%	5.5×4.0	3.15	5.0	K1	M1
RCER73A682K2□□H03□	X7R (EIA)	1000Vdc	6800pF±10%	5.5×4.0	3.15	5.0	K1	M1
RCER73A103K2□□H03□	X7R (EIA)	1000Vdc	10000pF±10%	5.5×4.0	3.15	5.0	K1	M1
RCER73A153K3□□H03□	X7R (EIA)	1000Vdc	15000pF±10%	5.5×5.0	4.0	5.0	K1	M1
RCER73A223K3□□H03□	X7R (EIA)	1000Vdc	22000pF±10%	5.5×5.0	4.0	5.0	K1	M1
RCER73A333K4□□H03□	X7R (EIA)	1000Vdc	33000pF±10%	7.5×5.5	4.0	5.0	K1	M1
RCER73A473K4□□H03□	X7R (EIA)	1000Vdc	47000pF±10%	7.5×5.5	4.0	5.0	K1	M1
RCER73A683K5□□H03□	X7R (EIA)	1000Vdc	68000pF±10%	7.5×8.0	4.0	5.0	B1	E1
RCER73A104K5□□H03□	X7R (EIA)	1000Vdc	0.10µF±10%	7.5×8.0	4.0	5.0	B1	E1
RCER73A224MU□□H03□	X7R (EIA)	1000Vdc	0.22µF±20%	7.7×13.0	4.0	5.0	B1	E1

Two blank columns are filled with the lead style code. Please refer to the 3 columns on the right for the appropriate code.

The last blank column is filled with the packaging code. (B: bulk, A: ammo pack)

No.	AEC-Q200	Test Item	Specifications	AEC-Q200 Test Method
1		ost-Stress	·	-
	High Tem Exposure		The measured and observed characteristics should satisfy the specifications in the following table.	
		Appearance	No defects or abnormalities	
		Capacitance Change	Within ±3% or ±0.3pF (Whichever is larger)	Sit the capacitor for 1000±12h at 150±3°C. Let sit for 24±2h at
2		O	30pF ≤ C: Q ≥ 350 10pF ≤ C < 30pF: Q ≥ 275+5C/2 10pF > C: Q ≥ 200+10C	room condition*, then measure.
			C: Nominal Capacitance (pF)	
		I.R.	More than 1000M Ω or 50M Ω • μ F (Whichever is smaller)	
	Temperat Cycling	ure	The measured and observed characteristics should satisfy the specifications in the following table.	
		Appearance	No defects or abnormalities	Perform the 1000 cycles according to the four heat treatments
		Capacitance Change	Within ±5% or ±0.5pF (Whichever is larger)	listed in the following table. Let sit for 24±2h at room condition*, then measure.
3		Q	30pF ≤ C: Q ≥ 350 10pF ≤ C < 30pF: Q ≥ 275+5C/2 10pF > C: Q ≥ 200+10C	Step 1 2 3 4 Temp. (°C) -55+0/-3 Room Temp. 125+3/-0 Room Temp. Time (min) 15±3 1 15±3 1
			C: Nominal Capacitance (pF)	
		I.R.	1000M Ω or 50M Ω • μF min. (Whichever is smaller)	
	Moisture Resistance	e	The measured and observed characteristics should satisfy the specifications in the following table.	Apply the 24h heat (25 to 65°C) and humidity (80 to 98%) treatment shown below, 10 consecutive times.
		Appearance	No defects or abnormalities	Let sit for 24±2h at room condition*, then measure.
		Capacitance Change	Within ±5% or ±0.5pF (Whichever is larger)	Humidity Humidity Humidity Humidity (°C) 90-98% 80-98% 90-98% 80-98% 90-98% 65
4		Q	30pF ≤ C: Q ≥ 200 30pF > C: Q ≥ 100+10C/3	55 50 45 45 40 # 35
		I.R.	C: Nominal Capacitance (pF) $500M\Omega \text{ or } 25M\Omega \bullet \mu\text{F min. (Whichever is smaller)}$	0 1 2 3 4 5 6 7 8 9 101112131415161718192021222324 Hours
	Biased Hu	ımidity	The measured and observed characteristics should satisfy the specifications in the following table.	
		Appearance	No defects or abnormalities	
5		Capacitance Change	Within ±5% or ±0.5pF (Whichever is larger)	Apply the rated voltage and DC1.3+0.2/-0V (add $100k\Omega$ resistor) at $85\pm3^{\circ}$ C and 80 to 85% humidity for $1000\pm12h$.
		Q	30pF ≤ C: Q ≥ 200 30pF > C: Q ≥ 100+10C/3	Remove and let sit for 24±2h at room condition*, then measure. The charge/discharge current is less than 50mA.
			C: Nominal Capacitance (pF)	
		I.R.	500M Ω or 25M Ω • μF min. (Whichever is smaller)	
	Operation	al Life	The measured and observed characteristics should satisfy the specifications in the following table.	
		Appearance	No defects or abnormalities	Apply the voltage shown in the table for 1000±12h at 125±3°C.
		Capacitance Change	Within ±3% or ±0.3pF (Whichever is larger)	Let sit for 24±2h at room condition*, then measure. The charge/discharge current is less than 50mA.
6		Q	30pF ≤ C: Q ≥ 350 10pF ≤ C < 30pF: Q ≥ 275+5C/2 10pF > C: Q ≥ 200+10C	Rated Voltage DC50V, DC100V 200% of the rated voltage DC250V 150% of the rated voltage DC630V, DC1kV 120% of the rated voltage
			C: Nominal Capacitance (pF)	
		I.R.	1000M Ω or 50M Ω • μF min. (Whichever is smaller)	

^{* &}quot;room condition" Temperature: 15 to 35°C, Relative humidity: 45 to 75%, Atmosphere pressure: 86 to 106kPa

Continued from the preceding page. \searrow

No.	AEC-Q200) Test <u>Item</u>	Specifications	AEC-Q200 Test Method				
7	External \		No defects or abnormalities	Visual inspection				
8	Physical D		Within the specified dimensions	Using calipers and micrometers				
9	Marking	Jimension	To be easily legible	Visual inspection				
	Marking	Annogrange	No defects or abnormalities	'				
		Appearance		Per MIL-STD-202 Method 215 Solvent 1: 1 part (by volume) of isopropyl alcohol				
10	Resistance to Solvents	Capacitance Q	Within the specified tolerance $30pF \le C: Q \ge 1000$ $30pF > C: Q \ge 400+20C$	3 parts (by volume) of mineral spirits Solvent 2: Terpene defluxer Solvent 3: 42 parts (by volume) of water				
			C: Nominal Capacitance (pF)	1 part (by volume) of propylene glycol monomethyl ether				
		I.R.	More than $10000M\Omega$ or $500M\Omega \cdot \mu F$ (Whichever is smaller)	1 part (by volume) of monoethanolamine				
		Appearance	No defects or abnormalities	Three shocks in each direction should be applied along				
	Mechanical	Capacitance	Within the specified tolerance	3 mutually perpendicular axes of the test specimen (18 shocks)				
11	Shock	Q	30pF ≤ C: Q ≥ 1000 30pF > C: Q ≥ 400+20C	The specified test pulse should be Half-sine and should have a duration: 0.5ms, peak value: 1500G and velocity change: 4.7m/s.				
			C : Nominal Capacitance (pF)					
		Appearance	No defects or abnormalities	The capacitor should be subjected to a simple harmonic motion having a total amplitude of 1.5mm, the frequency being varied				
		Capacitance	Within the specified tolerance	uniformly between the approximate limits of 10 and 2000Hz.				
12	Vibration	Q	30pF ≤ C: Q ≥ 1000 30pF > C: Q ≥ 400+20C	The frequency range, from 10 to 2000Hz and return to 10Hz, should be traversed in approximately 20min. This motion should be applied for 12 items in each 3 mutually perpendicular				
			C: Nominal Capacitance (pF)	directions (total of 36 times).				
	Resistance		The measured and observed characteristics should satisfy the					
	Soldering F (Non-Preheat)		specifications in the following table.	_				
13	(,	Appearance	No defects or abnormalities	The lead wires should be immersed in the melted solder 1.5 to				
1		Capacitance Change	Within ±2.5% or ±0.25pF (Whichever is larger)	2.0mm from the root of terminal at 260±5°C for 10±1s. Post-treatment				
		Dielectric Strength (Between Terminals)	No defects	Capacitor should be stored for 24±2h at room condition*.				
	Resistance Soldering H		The measured and observed characteristics should satisfy the specifications in the following table.					
	(On-Preheat)	Appearance	No defects or abnormalities	First the capacitor should be stored at 120+0/-5°C for 60+0/-5				
13		Capacitance Change	Within ±2.5% or ±0.25pF (Whichever is larger)	Then, the lead wires should be immersed in the melted solder 1. to 2.0mm from the root of terminal at 260±5°C for 7.5+0/-1s. Post-treatment				
		Dielectric Strength (Between Terminals)	No defects	Capacitor should be stored for 24±2h at room condition*.				
	Resistance Soldering H		The measured and observed characteristics should satisfy the specifications in the following table.	Test condition				
	(soldering iron method)	Appearance	No defects or abnormalities	Temperature of iron-tip: 350±10°C				
13 ' 3	il di ilicaloù)	Capacitance Change	Within ±2.5% or ±0.25pF (Whichever is larger)	 Soldering time: 3.5±0.5s Soldering position Straight Lead: 1.5 to 2.0mm from the root of terminal. 				
J		Dielectric Strength (Between Terminals)	No defects	Crimp Lead: 1.5 to 2.0mm from the end of lead bend. Post-treatment Capacitor should be stored for 24±2h at room condition*.				
			The measured and observed characteristics should satisfy the specifications in the following table.					
		Appearance	No defects or abnormalities	Perform the 300 cycles according to the two heat treetments				
	Capacitance Change Within ±5% or ±0.5pF (Whichever is larger)	Perform the 300 cycles according to the two heat treatments listed in the following table (Maximum transfer time is 20s). Let sit for 24±2h at room condition*, then measure.						
14	Change 30pF ≤ C: Q ≥ 350 10pF ≤ C < 30p: Q ≥ 275+5C/2 Q 10pF > C: Q ≥ 200+10C		10pF ≤ C < 30p: Q ≥ 275+5C/2	Step 1 2 Temp. (°C) -55+0/-3 125+3/-0 Time (min) 15±3 15±3				
			C: Nominal Capacitance (pF)					
		I.R.	1000M Ω or 50M Ω • μF min. (Whichever is smaller)					

 $^{^{\}star}$ "room condition" Temperature: 15 to 35°C, Relative humidity: 45 to 75%, Atmosphere pressure: 86 to 106kPa

Continued from the preceding page.

No.	AEC-Q200	Test Item	Specifi	cations	AEC-Q200 Test Method		
	o. AEC-Q200 Test Item Appearance		No defects or abnormalities				
		Capacitance	Within the specified tolerance		Per AEC-Q200-002		
15	ESD	Q	30pF ≤ C: Q ≥ 1000 30pF > C: Q ≥ 400+20C				
			C: Nominal Capacitance (pF)				
		I.R.	More than 10000MΩ or 500MΩ	2 • μF (Whichever is smaller)			
16	Solderabi	lity	Lead wire should be soldered w direction over 95% of the circui		Should be placed into steam aging for 8h±15min. The terminal of capacitor is dipped into a solution of ethan (JIS K 8101) and rosin (JIS K 5902) (25% rosin in weight propotion). Immerse in solder solution for 2±0.5s. In both cases the depth of dipping is up to about 1.5 to 2m from the terminal body.		
		Appearance	No defects or abnormalities		Visual inspection		
		Capacitance	Within the specified tolerance		The capacitance, Q should be measured at 25°C at the	е	
		Q	30pF ≤ C: Q ≥ 1000 30pF > C: Q ≥ 400+20C		frequency and voltage shown in the table. Nominal Cap. Frequency Voltage	(r.m.s.)	
			C: Nominal Capacitance (pF)		$ \begin{array}{c cccc} 10\mu F \geqq C > 1000pF & 1\pm 0.1 \text{kHz} & AC1\pm 0.2 \text{V} \text{(}\\ \hline C > 10\mu F & 120\pm 24 \text{Hz} & AC0.5\pm 0.1 \text{V} \end{array} $		
		I.R.	Between Terminals	10000ΜΩ or 500ΜΩ • μF min. (Whichever is smaller)	The insulation resistance should be measured with a Divoltage shown in the table at 25°C within 2min of charging. Rated Voltage Measuring V DC25V, DC50V, DC100V, DC250V Rated VolDC630V, DC1kV DC50V	oltage ltage	
17	Electrical Charac- terization	Dielastria	Between Terminals	No defects or abnormalities	The capacitor should not be damaged when DC voltage shown in the table is applied between the termination for 1 to 5s. (Charge/Discharge current ≤ 50mA.) Rated Voltage Test Voltage DC50V, DC100V 300% of the rated voltage DC50V 200% of the rated voltage DC50V 150% of the rated voltage DC630V 150% of the rated voltage DC630V 150% of the rated voltage DC1kV 130% of the rated voltage DC1kV 130% of the rated voltage DC1kV	ltage ltage	
		Dielectric Strength Body Insulation	Body Insulation	No defects or abnormalities	The capacitor is placed in a container with metal balls or diameter so that each terminal, short-circuit is kept approximately 2mm from the balls, and DC voltage show the table is impressed for 1 to 5s between capacitor ter and metal balls. (Charge/Discharge current ≤ 50mA.) Rated Voltage DC25V, DC50V, DC100V DC250V DC90% of the rated voltage DC250V DC630V, DC1kV DC1300V		
18	Terminal Strength	Tensile Strength Termination not to be broken or loosened		r loosened	As in the figure, fix the capacitor body, apply the force gradually to each lead in the radial direction of the capacitor until reaching 10N and then keep the force applied for 10±1s.		
		Bending Strength	Termination not to be broken o	r loosened	Each lead wire should be subjected to a force of 2.5N and then be bent 90° at the point of egress in one direction. Each wire is then returned to the original position and bent 90° in the opposite direction at the rate of one bend per 2 to 3s.		

Continued on the following page. ${\cal J}$

Continued from the preceding page. \searrow

No.	AEC-Q200 Test Item		Specifications	AEC-Q200	Test Method		
				The capacitance change should be measured after 5min at each specified temperature step.			
				Step 1	Temperature (°C)		
	Capacitance			2	-55±3		
		Char.	Temperature Coefficient	3	25±2		
			25 to 125°C: 0±30ppm/°C	4	125±3		
19	•	COG	-55 to 25°C: 0+30/-72ppm/°C	5	25±2		
	Characteristics	U2J	25 to 125°C: -750±120ppm/°C -55 to 25°C: -750+120/-347ppm/°C		3 as a reference. When cycling rom step 1 through 5 (-55 to ld be within the specified coefficient. lated by dividing the differences inimum measured values in the		

No.	AEC-Q200	Test Item	Specifications	AEC-Q200 Test Method			
1	Pre-and P Electrical	ost-Stress Test		-			
	High Tem Exposure	perature (Storage)	The measured and observed characteristics should satisfy the specifications in the following table.				
		Appearance	No defects or abnormalities	Sit the capacitor for 1000±12h at 150±3°C. Let sit for 24±2h			
2		Capacitance Change	Within ±12.5%	 at room condition*, then measure. Pretreatment Perform the heat treatment at 150+0/-10°C for 60±5min 			
		D.F.	0.04 max.	and then let sit for 24±2h at room condition*.			
		I.R.	More than $1000M\Omega$ or $50M\Omega \cdot \mu F$ (Whichever is smaller)				
	Temperat Cycling	:ure	The measured and observed characteristics should satisfy the specifications in the following table.	Perform the 1000 cycles according to the four heat treatments listed in the following table. Let sit for 24±2h at room condition*,			
		Appearance	No defects or abnormalities	then measure.			
3		Capacitance Change	Within ±12.5%	Step 1 2 3 4 Temp. (°C) -55+0/-3 Room Temp. 125+3/-0 Room Temp. Time (min) 15±3 1 15±3 1			
		D.F.	0.05 max.	•Pretreatment			
		I.R.	1000MΩ or 50MΩ • μF min. (Whichever is smaller)	Perform the heat treatment at 150+0/-10°C for 60±5min and then let sit for 24±2h at room condition*.			
	Moisture Resistance		The measured and observed characteristics should satisfy the specifications in the following table.	Apply the 24h heat (25 to 65°C) and humidity (80 to 98%) treatment shown below, 10 consecutive times.			
		Appearance	No defects or abnormalities	Let sit for 24±2h at room condition*, then measure. •Pretreatment			
		Capacitance Change Within $\pm 12.5\%$ D.F. 0.05 max. I.R. $500M\Omega$ or $25M\Omega \cdot \mu F$ min. (Whichever is smaller)		Perform the heat treatment at 150+0/-10°C for 60±5min and then let sit for 24±2h at room condition*. Humidity Humidity Humidity Humidity Humidity 90-98% 80-98% 90-98% 80-98% 90-98% 90-98%			
4				70 65 65 94 49 49 49 40 33 62 25 15 10 10 10 10 10 10 10 10 10 10 10 10 10			
	Biased Hu	ımidity	The measured and observed characteristics should satisfy the specifications in the following table.	Apply the rated voltage and DC1.3+0.2/-0V (add $100k\Omega$ resistor)			
		Appearance	No defects or abnormalities	at 85±3°C and 80 to 85% humidity for 1000±12h. Remove and let sit for 24±2h at room condition*, then measure.			
5		Capacitance Change	Within ±12.5%	The charge/discharge current is less than 50mA. •Pretreatment Preferm the best treatment at 150.07 10% for 60.5 min and			
		D.F.	0.05 max.	Perform the heat treatment at 150+0/-10°C for 60±5min and then let sit for 24±2h at room condition*.			
		I.R.	500MΩ or 25MΩ • μF min. (Whichever is smaller)				

 $^{^{*\,\}text{"room condition"}} \text{Temperature: 15 to 35°C, Relative humidity: 45 to 75\%, Atmosphere pressure: 86 to 106 kPa}$

Continued on the following page. 🖊

Continued from the preceding page.

No.	AEC-Q200	Test Item	Specifications	AEC-Q200	Test Method		
	Operation	nal Life	The measured and observed characteristics should satisfy the specifications in the following table.	Apply the voltage shown in the t Let sit for 24±2h at room condi			
		Appearance	No defects or abnormalities	The charge/discharge current is less than 50mA. •Pretreatment			
6		Capacitance Change Within ±12.5%		Apply test voltage for 60±5min at test temperature. Remove and let sit for 24±2h at room condition*.			
		D.F.	0.04 max.	Rated Voltage	Test Voltage		
		I.R.	1000MΩ or 50MΩ • μF min. (Whichever is smaller)	DC25V, DC50V, DC100V DC250V DC630V DC1kV	200% of the rated voltage *1 150% of the rated voltage 120% of the rated voltage 110% of the rated voltage		
7	External \	/isual	No defects or abnormalities	Visual inspection			
8	Physical [Dimension	Within the specified dimensions	Using calipers and micrometers	;		
9	Marking		To be easily legible	Visual inspection			
		Appearance	No defects or abnormalities	Per MIL-STD-202 Method 215			
		Capacitance	Within the specified tolerance	Solvent 1: 1 part (by volume)			
	Desistance	D.F.	0.025 max.	3 parts (by volume) Solvent 2: Terpene defluxer	of mineral spirits		
10	to Solvents	i (CSIStarice		Rated Voltage: DC25V, DC50V, DC100V More than $10000M\Omega$ or $500M\Omega \cdot \mu F$ (Whichever is smaller) Rated Voltage: DC250V, DC500V, DC630V, DC1kV More than $10000M\Omega$ or $100M\Omega \cdot \mu F$ (Whichever is smaller)	Solvent 2: Terpene defluxer Solvent 3: 42 parts (by volume) of water 1 part (by volume) of propylene glycol monomethyl ether 1 part (by volume) of monoethanolamine		
		Appearance	No defects or abnormalities	Three shocks in each direction s	should be applied along		
11	Mechanical	Capacitance	Within the specified tolerance	3 mutually perpendicular axes of The specified test pulse should	of the test specimen (18 shocks).		
	Shock	D.F.	0.025 max.		llue: 1500G and velocity change:		
		Appearance	No defects or abnormalities		ted to a simple harmonic motion		
		Capacitance	Within the specified tolerance	having a total amplitude of 1.5mm, the frequency being varied uniformly between the approximate limits of 10 and 2000Hz.			
12	Vibration	D.F.	0.025 max.	The frequency range, from 10 to 2000Hz and return to 10Hz, should be traversed in approximately 20min. This motion should be applied for 12 items in each 3 mutually perpendicular directions (total of 36 times).			
	Resistance Soldering H	,					
	(Non-Preheat)	Appearance	No defects or abnormalities	 The lead wires should be immer 2.0mm from the root of terminal 			
13		Capacitance Change	Within ±7.5%		150+0/-10°C for 1h, then place		
1		Dielectric Strength (Between Terminals)		at room temperature for 24±2h before initial measurement. Post-treatment Capacitor should be stored for 24±2h at room condition*.			
	Resistance Soldering H		The measured and observed characteristics should satisfy the specifications in the following table.	First the capacitor should be sto	ored at 120+0/-5°C for 60+0/-5s		
	(On-Preheat)	Appearance	No defects or abnormalities	Then, the lead wires should be i	mmersed in the melted solder 1.5		
13		Capacitance Change	Within ±7.5%	to 2.0mm from the root of terminal at 260±5°C for 7.5+0/-1s. Pre-treatment Capacitor should be stored at 150+0/-10°C for 1h, then place			
2		Dielectric Strength (Between Terminals)	No defects	room temperature for 24±2h b Post-treatment Capacitor should be stored for	efore initial measurement.		

 $[\]star$ "room condition" Temperature: 15 to 35°C, Relative humidity: 45 to 75%, Atmosphere pressure: 86 to 106kPa

^{*1:} below parts are applicable in rated voltage $\!\times 150\%$.

Char.	Rated Voltage	Capacitance	Dimensions
C7	1H	105	1
C7	1H	475	2
C7	1H	106	3
C7	1H	226	W
R7	2A	334	1
R7	2A	474-105	2
C7	2A	155-225	3
C7	2A	475	W

Continued on the following page. \nearrow

Con	tinued fron	n the prece	eding page. 🔌					
No.	AEC-Q200	Test Item		Specifications	AEC-Q200 Test Method			
	Resistance Soldering H	leat	specifications in the f		Test condition Temperature of iron-tip: 350± Soldering time: 3.5±0.5s.	:10°C		
	Iron Method)	Appearance	No defects or abnorm	nalities	Soldering position			
13		Capacitance Change	Within ±7.5%		Straight Lead: 1.5 to 2.0mm for Crimp Lead: 1.5 to 2.0mm fro			
3		Dielectric Strength (Between Terminals)	No defects		·	150+0/-10°C for 1h, then place 2h before initial measurement. r 24±2h at room condition*.		
	Thermal S	Shock	The measured and ob specifications in the f	served characteristics should satisfy the ollowing table.	Perform the 300 cycles according to the two heat treatmen listed in the following table (Maximum transfer time is 20s).			
		Appearance	No defects or abnorm	nalities	Let sit for 24±2h at room cond	lition*, then measure.		
14		Capacitance Change	Within ±12.5%		Step 1 Temp. (°C) -55+0/- Time (min) 15±3	2 3 125+3/-0 15±3		
		D.F.	0.05 max.		•Pretreatment	1313		
		I.R.	1000MΩ or 50MΩ • μ	F min. (Whichever is smaller)	Perform the heat treatment and then let sit for 24±2h at			
		Appearance	No defects or abnorm	nalities				
		Capacitance	Within the specified t	olerance				
15	ESD	D.F.	0.025 max.		Per AEC-Q200-002			
		I.R.	Rated Voltage: DC25	V, DC50V, DC100V Ω or 500MΩ • μF (Whichever is smaller) 0V, DC500V, DC630V, DC1kV Ω or 100MΩ • μF (Whichever is smaller)				
16	Solderabi	lity		oldered with uniform coating on the axial the circumferential direction.	Should be placed into steam aging for 8h±15min. The terminal of capacitor is dipped into a solution of ethanol (JIS K 8101) and rosin (JIS K 5902) (25% rosin in weight propotion). Immerse in solder solution for 2±0.5s. In both cases the depth of dipping is up to about 1.5 to 2mm from the terminal body.			
		Appearance	No defects or abnorm	nalities	Visual inspection			
		Capacitance	Within the specified t	olerance	The capacitance/D.F. should be measured at 25°C at the frequency and voltage shown in the table.			
		D.F. 0.025 max			C ≦ 1000pF 1±0 10μF ≧ C > 1000pF 1±0	Voltage 1.1MHz		
		I.R.	Between Terminals	Rated Voltage: DC25V, DC50V, DC100V More than 10000MΩ or 500MΩ • μF (Whichever is smaller) Rated Voltage: DC250V, DC500V, DC630V, DC1kV More than 10000MΩ or 100MΩ • μF (Whichever is smaller)	The insulation resistance shou voltage shown in the table at 2 of charging. Rated Voltage DC25V, DC50V, DC100V, DC DC630V, DC1kV	25°C within 2min Measuring Voltage		
17	Electrical Charac- terization	Dielectric	Between Terminals	No defects or abnormalities	The capacitor should not be day shown in the table is applied by for 1 to 5s. (Charge/Discharge current ≤ 5) Rated Voltage DC25V, DC50V, DC100V DC250V DC630V DC1kV	etween the terminations		
		Strength	Body Insulation	No defects or abnormalities	diameter so that each termina	balls, and 250% of the rated DC npressed for 1 to 5s between balls.		

^{* &}quot;room condition" Temperature: 15 to 35°C, Relative humidity: 45 to 75%, Atmosphere pressure: 86 to 106kPa

Continued from the preceding page.

	AEC-Q200	·	Specifications	AEC-Q200 Test Method		
18	Terminal Strength	Tensile Strength	Termination not to be broken or loosened	As in the figure, fix the capacitor body, apply the force gradually to each lead in the radial direction of the capacitor until reaching 10N and then keep the force applied for 10±1s.		
		Bending Strength	Termination not to be broken or loosened	Each lead wire should be subjected to a force of 2.5N and then be bent 90° at the point of egress in one direction. Each wire is then returned to the original position and bent 90° in the opposite direction at the rate of one bend per 2 to 3s.		
	·			The capacitance change should be measured after 5min at each specified temperature step.		
				Step Temperature (°C)		
				1 25±2		
				2 -55±3		
				3 25±2		
	Capacitar		Char. X7R: Within ±15%	4 125±3		
19			Char. X7S: Within ±22%	5 25±2		
	Character	nnerature		The ranges of capacitance change compared with the above 25°C value over the temperature ranges shown in the table should be within the specified ranges. •Pretreatment Perform the heat treatment at 150+0/-10°C for 60±5min and then let sit for 24±2h at room condition*. Perform the initial measurement.		

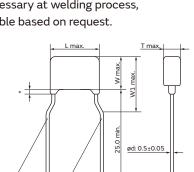
 $^{{\}rm *`"room\ condition"}\ \ {\rm Temperature:15\ to\ 35°C,Relative\ humidity:45\ to\ 75\%,Atmosphere\ pressure:86\ to\ 106kPa}$

150°C Operation Leaded MLCC for Automotive

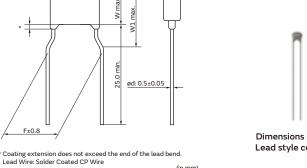
■ RHE Series (DC25V-DC100V)

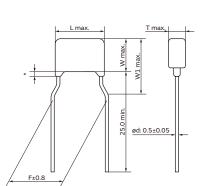
Features

- 1. Small size and large capacitance
- 2. Low ESR and ESL suitable for high frequency
- 3. Applied maximum temperature up to 150°C Note: Maximum accumulative time to 150°C is within 2000 hours.
- 4. Meet AEC-Q200, ISO7637-2 (surge test) requirement
- 5. Meet LF (Lead Free) and HF (Halogen Free)
- 6. Flow soldering and welding are available. (Re-flow soldering is not available.)
- 7. If copper wire is necessary at welding process, copper wire is available based on request.



Dimensions code: 0 Lead style code: K1





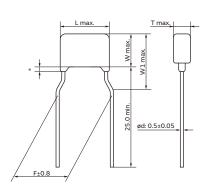
Dimensions code: 1 Lead style code: K1

Dimensions code: 2

Lead style code: K1

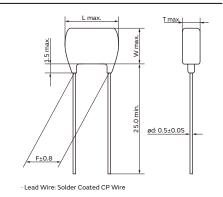
- * Coating extension does not exceed the end of the lead bend · Lead Wire: Solder Coated CP Wire

(in mm)



- * Coating extension does not exceed the end of the lead bend Lead Wire: Solder Coated CP Wire

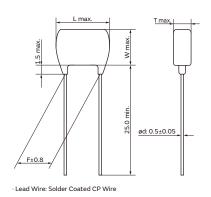
Dimensions code: 0 Lead style code: A2



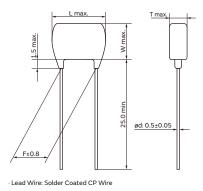
(in mm)



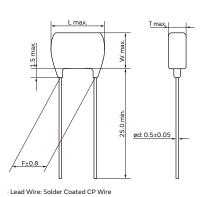
Lead style code: A2









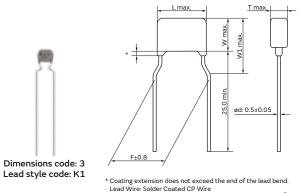


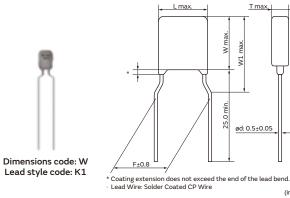
Continued on the following page.

25

(in mm)

Continued from the preceding page. ${f \Sigma}$





Dimensions

Dimensions and		Dimensions (mm)								
Lead Style Code	L	w	W1	Т	F	d				
0A2/0DB	3.6	3.5	-		2.5	0.5				
0K1/0M1	3.6	3.5	6.0		5.0	0.5				
1A2/1DB	4.0	3.5	-		2.5	0.5				
1K1/1M1	4.0	3.5	5.0		5.0	0.5				
2A2/2DB	5.5	4.0	-	See the individual product specification	2.5	0.5				
2K1/2M1	5.5	4.0	6.0	produce specification	5.0	0.5				
3A2/3DB	5.5	5.0	-		2.5	0.5				
3K1/3M1	5.5	5.0	7.5		5.0	0.5				
WK1/WM1	5.5	7.5	10.0		5.0	0.5				

Marking

Marking					
Туре	Temperature Compensating Type	High Dielectric	Constant Type		
Rated Voltage	DC50V, DC100V	DC25V, DC50V	DC100V		
Dimensions Code Temp. Char.	X8G	X	8L		
0	8 102J	8 104K	8 103K		
1		1541	103K		
2	_	(P 105 K58	© 224 K18		
3, W	_	(M 335) K58	_		
Temperature Characteristics	Marked with code (X8G, X8L cha	r.: 8)			
Nominal Capacitance	Marked with 3 figures				
Capacitance Tolerance	Marked with code				
Rated Voltage	Marked with code (DC25V: 2, DC50V: 5, DC100V: 1) A part is omitted (Please refer to the marking example.)				
Manufacturer's Identification	Marked with M A part is omitted (Please refer to the marking example.)				

■ Temperature Compensating Type, X8G Characteristics

Part Number	Temp.	Rated	Capacitance	Dimensions LxW	Dimension T	Lead Space F	Lead Style Code	Lead Style Code
	Char.	Voltage		(mm)	(mm)	(mm)	Bulk	Taping
RHE5G1H101J0 H03	X8G (Murata)	50Vdc	100pF±5%	3.6×3.5	2.5	2.5	A2	DB
RHE5G1H101J0 H03	X8G (Murata)	50Vdc	100pF±5%	3.6×3.5	2.5	5.0	K1	M1
RHE5G1H121J0 H03	X8G (Murata)	50Vdc	120pF±5%	3.6×3.5	2.5	2.5	A2	DB
RHE5G1H121J0 H03	X8G (Murata)	50Vdc	120pF±5%	3.6×3.5	2.5	5.0	K1	M1
RHE5G1H151J0 H03	X8G (Murata)	50Vdc	150pF±5%	3.6×3.5	2.5	2.5	A2	DB
RHE5G1H151J0 H03	X8G (Murata)	50Vdc	150pF±5%	3.6×3.5	2.5	5.0	K1	M1
RHE5G1H181J0 H03	X8G (Murata)	50Vdc	180pF±5%	3.6×3.5	2.5	2.5	A2	DB
RHE5G1H181J0 H03	X8G (Murata)	50Vdc	180pF±5%	3.6×3.5	2.5	5.0	K1	M1
RHE5G1H221J0 H03	X8G (Murata)	50Vdc	220pF±5%	3.6×3.5	2.5	2.5	A2	DB
RHE5G1H221J0 H03	X8G (Murata)	50Vdc	220pF±5%	3.6×3.5	2.5	5.0	K1	M1
RHE5G1H271J0 H03	X8G (Murata)	50Vdc	270pF±5%	3.6×3.5	2.5	2.5	A2	DB
RHE5G1H271J0 H03	X8G (Murata)	50Vdc	270pF±5%	3.6×3.5	2.5	5.0	K1	M1
RHE5G1H331J0 H03	X8G (Murata)	50Vdc	330pF±5%	3.6×3.5	2.5	2.5	A2	DB
RHE5G1H331J0□□H03□	X8G (Murata)	50Vdc	330pF±5%	3.6×3.5	2.5	5.0	K1	M1
RHE5G1H391J0□□H03□	X8G (Murata)	50Vdc	390pF±5%	3.6×3.5	2.5	2.5	A2	DB
RHE5G1H391J0 H03	X8G (Murata)	50Vdc	390pF±5%	3.6×3.5	2.5	5.0	K1	M1
RHE5G1H471J0 H03	X8G (Murata)	50Vdc	470pF±5%	3.6×3.5	2.5	2.5	A2	DB
RHE5G1H471J0□□H03□	X8G (Murata)	50Vdc	470pF±5%	3.6×3.5	2.5	5.0	K1	M1
RHE5G1H561J0□□H03□	X8G (Murata)	50Vdc	560pF±5%	3.6×3.5	2.5	2.5	A2	DB
RHE5G1H561J0 H03	X8G (Murata)	50Vdc	560pF±5%	3.6×3.5	2.5	5.0	K1	M1
RHE5G1H681J0 H03	X8G (Murata)	50Vdc	680pF±5%	3.6×3.5	2.5	2.5	A2	DB
RHE5G1H681J0 H03	X8G (Murata)	50Vdc	680pF±5%	3.6×3.5	2.5	5.0	K1	M1
RHE5G1H821J0 H03	X8G (Murata)	50Vdc	820pF±5%	3.6×3.5	2.5	2.5	A2	DB
RHE5G1H821J0 H03	X8G (Murata)	50Vdc	820pF±5%	3.6×3.5	2.5	5.0	K1	M1
RHE5G1H102J0 H03	X8G (Murata)	50Vdc	1000pF±5%	3.6×3.5	2.5	2.5	A2	DB
RHE5G1H102J0 H03	X8G (Murata)	50Vdc	1000pF±5%	3.6×3.5	2.5	5.0	K1	M1
RHE5G1H122J0 H03	X8G (Murata)	50Vdc	1200pF±5%	3.6×3.5	2.5	2.5	A2	DB
RHE5G1H122J0 H03	X8G (Murata)	50Vdc	1200pF±5%	3.6×3.5	2.5	5.0	K1	M1
RHE5G1H152J0 H03	X8G (Murata)	50Vdc	1500pF±5%	3.6×3.5	2.5	2.5	A2	DB
RHE5G1H152J0 H03	X8G (Murata)	50Vdc	1500pF±5%	3.6×3.5	2.5	5.0	K1	M1
RHE5G1H182J0□□H03□	X8G (Murata)	50Vdc	1800pF±5%	3.6×3.5	2.5	2.5	A2	DB
RHE5G1H182J0□□H03□	X8G (Murata)	50Vdc	1800pF±5%	3.6×3.5	2.5	5.0	K1	M1
RHE5G1H222J0 H03	X8G (Murata)	50Vdc	2200pF±5%	3.6×3.5	2.5	2.5	A2	DB
RHE5G1H222J0 H03		50Vdc	2200pF±5%	3.6×3.5	2.5	5.0	K1	M1
RHE5G1H272J0 H03	X8G (Murata)	50Vdc	2700pF±5%	3.6×3.5	2.5	2.5	A2	DB
RHE5G1H272J0 H03	X8G (Murata)	50Vdc	2700pF±5%	3.6×3.5	2.5	5.0	K1	M1
RHE5G1H332J0□□H03□	X8G (Murata)	50Vdc	3300pF±5%	3.6×3.5	2.5	2.5	A2	DB
RHE5G1H332J0□□H03□	X8G (Murata)	50Vdc	3300pF±5%	3.6×3.5	2.5	5.0	K1	M1
RHE5G1H392J0□□H03□	X8G (Murata)	50Vdc	3900pF±5%	3.6×3.5	2.5	2.5	A2	DB
RHE5G1H392J0□□H03□	X8G (Murata)	50Vdc	3900pF±5%	3.6×3.5	2.5	5.0	K1	M1
RHE5G1H472J1 H03	` ′	50Vdc	4700pF±5%	4.0×3.5	2.5	2.5	A2	DB
RHE5G1H472J1 H03	X8G (Murata)	50Vdc	4700pF±5%	4.0×3.5	2.5	5.0	K1	M1
RHE5G1H562J1 H03	` '	50Vdc	5600pF±5%	4.0×3.5	2.5	2.5	A2	DB
RHE5G1H562J1 H03	X8G (Murata)	50Vdc	5600pF±5%	4.0×3.5	2.5	5.0	K1	M1
RHE5G1H682J1□□H03□	X8G (Murata)	50Vdc	6800pF±5%	4.0×3.5	2.5	2.5	A2	DB
RHE5G1H682J1□□H03□	` '	50Vdc	6800pF±5%	4.0×3.5	2.5	5.0	K1	M1
RHE5G1H822J1 H03	` '	50Vdc	8200pF±5%	4.0×3.5	2.5	2.5	A2	DB
RHE5G1H822J1 H03	, ,	50Vdc	8200pF±5%	4.0×3.5	2.5	5.0	K1	M1
RHE5G1H103J1 H03	` '	50Vdc	10000pF±5%	4.0×3.5	2.5	2.5	A2	DB
RHE5G1H103J1 H03	X8G (Murata)	50Vdc	10000pF±5%	4.0×3.5	2.5	5.0	K1	M1
RHE5G2A101J0 H03	X8G (Murata)	100Vdc	100pF±5%	3.6×3.5	2.5	2.5	A2	DB
RHE5G2A101J0 H03	X8G (Murata)	100Vdc	100pF±5%	3.6×3.5	2.5	5.0	K1	M1
RHE5G2A121J0 H03	X8G (Murata)	100Vdc	120pF±5%	3.6×3.5	2.5	2.5	A2	DB
RHE5G2A121J0 H03	X8G (Murata)	100Vdc	120pF±5%	3.6×3.5	2.5	5.0	K1	M1
RHE5G2A151J0 H03	X8G (Murata)	100Vdc	150pF±5%	3.6×3.5	2.5	2.5	A2	DB
	/ .co (i idiata)	100 400	133pi 1370	5.5.5.5	2.5	2.5	72	

Continued from the preceding page.

Part Number	Temp.	Rated	Capacitance	Dimensions LxW	Dimension T	Lead Space F	Lead Style Code	Lead Style Code
	Char.	Voltage		(mm)	(mm)	(mm)	Bulk	Taping
RHE5G2A151J0 H03	X8G (Murata)	100Vdc	150pF±5%	3.6×3.5	2.5	5.0	K1	M1
RHE5G2A181J0 H03	X8G (Murata)	100Vdc	180pF±5%	3.6×3.5	2.5	2.5	A2	DB
RHE5G2A181J0 H03	X8G (Murata)	100Vdc	180pF±5%	3.6×3.5	2.5	5.0	K1	M1
RHE5G2A221J0□□H03□	X8G (Murata)	100Vdc	220pF±5%	3.6×3.5	2.5	2.5	A2	DB
RHE5G2A221J0□□H03□	X8G (Murata)	100Vdc	220pF±5%	3.6×3.5	2.5	5.0	K1	M1
RHE5G2A271J0 H03	X8G (Murata)	100Vdc	270pF±5%	3.6×3.5	2.5	2.5	A2	DB
RHE5G2A271J0 H03	X8G (Murata)	100Vdc	270pF±5%	3.6×3.5	2.5	5.0	K1	M1
RHE5G2A331J0 H03	X8G (Murata)	100Vdc	330pF±5%	3.6×3.5	2.5	2.5	A2	DB
RHE5G2A331J0 H03	X8G (Murata)	100Vdc	330pF±5%	3.6×3.5	2.5	5.0	K1	M1
RHE5G2A391J0 H03	X8G (Murata)	100Vdc	390pF±5%	3.6×3.5	2.5	2.5	A2	DB
RHE5G2A391J0 H03	X8G (Murata)	100Vdc	390pF±5%	3.6×3.5	2.5	5.0	K1	M1
RHE5G2A471J0 H03	X8G (Murata)	100Vdc	470pF±5%	3.6×3.5	2.5	2.5	A2	DB
RHE5G2A471J0 H03	X8G (Murata)	100Vdc	470pF±5%	3.6×3.5	2.5	5.0	K1	M1
RHE5G2A561J0 H03	X8G (Murata)	100Vdc	560pF±5%	3.6×3.5	2.5	2.5	A2	DB
RHE5G2A561J0 H03	X8G (Murata)	100Vdc	560pF±5%	3.6×3.5	2.5	5.0	K1	M1
RHE5G2A681J0 H03	X8G (Murata)	100Vdc	680pF±5%	3.6×3.5	2.5	2.5	A2	DB
RHE5G2A681J0 H03	X8G (Murata)	100Vdc	680pF±5%	3.6×3.5	2.5	5.0	K1	M1
RHE5G2A821J0 H03	X8G (Murata)	100Vdc	820pF±5%	3.6×3.5	2.5	2.5	A2	DB
RHE5G2A821J0 H03	X8G (Murata)	100Vdc	820pF±5%	3.6×3.5	2.5	5.0	K1	M1
RHE5G2A102J0 H03	X8G (Murata)	100Vdc	1000pF±5%	3.6×3.5	2.5	2.5	A2	DB
RHE5G2A102J0 H03	X8G (Murata)	100Vdc	1000pF±5%	3.6×3.5	2.5	5.0	K1	M1
RHE5G2A122J0 H03	X8G (Murata)	100Vdc	1200pF±5%	3.6×3.5	2.5	2.5	A2	DB
RHE5G2A122J0 H03	X8G (Murata)	100Vdc	1200pF±5%	3.6×3.5	2.5	5.0	K1	M1
RHE5G2A152J0 H03	X8G (Murata)	100Vdc	1500pF±5%	3.6×3.5	2.5	2.5	A2	DB
RHE5G2A152J0 H03	X8G (Murata)	100Vdc	1500pF±5%	3.6×3.5	2.5	5.0	K1	M1
RHE5G2A182J1 H03	X8G (Murata)	100Vdc	1800pF±5%	4.0×3.5	2.5	2.5	A2	DB
RHE5G2A182J1 H03	X8G (Murata)	100Vdc	1800pF±5%	4.0×3.5	2.5	5.0	K1	M1
RHE5G2A222J1 H03	X8G (Murata)	100Vdc	2200pF±5%	4.0×3.5	2.5	2.5	A2	DB
RHE5G2A222J1 H03	X8G (Murata)	100Vdc	2200pF±5%	4.0×3.5	2.5	5.0	K1	M1
RHE5G2A272J1 H03	X8G (Murata)	100Vdc	2700pF±5%	4.0×3.5	2.5	2.5	A2	DB
RHE5G2A272J1 H03	X8G (Murata)	100Vdc	2700pF±5%	4.0×3.5	2.5	5.0	K1	M1
RHE5G2A332J1□□H03□	X8G (Murata)	100Vdc	3300pF±5%	4.0×3.5	2.5	2.5	A2	DB
RHE5G2A332J1 H03	X8G (Murata)	100Vdc	3300pF±5%	4.0×3.5	2.5	5.0	K1	M1

Two blank columns are filled with the lead style code. Please refer to the 3 columns on the right for the appropriate code.

Part Number	Temp. Char.	Rated Voltage	Capacitance	Dimensions LxW (mm)	Dimension T (mm)	Lead Space F (mm)	Lead Style Code Bulk	Lead Style Code Taping
RHEL81E104K0□□H03□	X8L (Murata)	25Vdc	0.1µF±10%	3.6×3.5	2.5	2.5	A2	DB
RHEL81E104K0 H03	X8L (Murata)	25Vdc	0.1µF±10%	3.6×3.5	2.5	5.0	K1	M1
RHEL81E154K0 H03	X8L (Murata)	25Vdc	0.15µF±10%	3.6×3.5	2.5	2.5	A2	DB
RHEL81E154K0 H03	X8L (Murata)	25Vdc	0.15µF±10%	3.6×3.5	2.5	5.0	K1	M1
RHEL81E224K0 H03	X8L (Murata)	25Vdc	0.22µF±10%	3.6×3.5	2.5	2.5	A2	DB
RHEL81E224K0 H03	X8L (Murata)	25Vdc	0.22µF±10%	3.6×3.5	2.5	5.0	K1	M1
RHEL81E334K1□□H03□	X8L (Murata)	25Vdc	0.33µF±10%	4.0×3.5	2.5	2.5	A2	DB
RHEL81E334K1□□H03□	X8L (Murata)	25Vdc	0.33µF±10%	4.0×3.5	2.5	5.0	K1	M1
RHEL81E474K1□□H03□	X8L (Murata)	25Vdc	0.47µF±10%	4.0×3.5	2.5	2.5	A2	DB
RHEL81E474K1□□H03□	X8L (Murata)	25Vdc	0.47µF±10%	4.0×3.5	2.5	5.0	K1	M1
RHEL81E684K1□□H03□	X8L (Murata)	25Vdc	0.68µF±10%	4.0×3.5	2.5	2.5	A2	DB
RHEL81E684K1□□H03□	X8L (Murata)	25Vdc	0.68µF±10%	4.0×3.5	2.5	5.0	K1	M1
RHEL81E105K1 H03	X8L (Murata)	25Vdc	1.0µF±10%	4.0×3.5	2.5	2.5	A2	DB
RHEL81E105K1 H03	X8L (Murata)	25Vdc	1.0µF±10%	4.0×3.5	2.5	5.0	K1	M1
RHEL81E155K2□□H03□	X8L (Murata)	25Vdc	1.5µF±10%	5.5×4.0	3.15	2.5	A2	DB
RHEL81E155K2□□H03□	X8L (Murata)	25Vdc	1.5µF±10%	5.5×4.0	3.15	5.0	K1	M1
RHEL81E225K2□□H03□	X8L (Murata)	25Vdc	2.2µF±10%	5.5×4.0	3.15	2.5	A2	DB

The last blank column is filled with the packaging code. (B: bulk, A: ammo pack)

Continued from the preceding page. $\mbox{\ensuremath{\searrow}}$

Continued from the preceding page. 🕽								
Part Number	Temp. Char.	Rated Voltage	Capacitance	Dimensions LxW (mm)	Dimension T (mm)	Lead Space F (mm)	Lead Style Code Bulk	Lead Style Code Taping
RHEL81E225K2 H03	X8L (Murata)	25Vdc	2.2µF±10%	5.5×4.0	3.15	5.0	K1	M1
RHEL81E335K2□□H03□	X8L (Murata)	25Vdc	3.3µF±10%	5.5×4.0	3.15	2.5	A2	DB
RHEL81E335K2□□H03□	X8L (Murata)	25Vdc	3.3µF±10%	5.5×4.0	3.15	5.0	K1	M1
RHEL81E475K2□□H03□	X8L (Murata)	25Vdc	4.7µF±10%	5.5×4.0	3.15	2.5	A2	DB
RHEL81E475K2□□H03□	X8L (Murata)	25Vdc	4.7µF±10%	5.5×4.0	3.15	5.0	K1	M1
RHEL81E106K3 H03	X8L (Murata)	25Vdc	10µF±10%	5.5×5.0	4.0	2.5	A2	DB
RHEL81E106K3 H03	X8L (Murata)	25Vdc	10µF±10%	5.5×5.0	4.0	5.0	K1	M1
RHEL81E226MW H03	X8L (Murata)	25Vdc	22µF±20%	5.5×7.5	4.0	5.0	K1	M1
RHEL81H221K0 H03	X8L (Murata)	50Vdc	220pF±10%	3.6×3.5	2.5	2.5	A2	DB
RHEL81H221K0 H03	X8L (Murata)	50Vdc	220pF±10%	3.6×3.5	2.5	5.0	K1	M1
RHEL81H331K0□□H03□	X8L (Murata)	50Vdc	330pF±10%	3.6×3.5	2.5	2.5	A2	DB
RHEL81H331K0□□H03□	X8L (Murata)	50Vdc	330pF±10%	3.6×3.5	2.5	5.0	K1	M1
RHEL81H471K0 H03	X8L (Murata)	50Vdc	470pF±10%	3.6×3.5	2.5	2.5	A2	DB
RHEL81H471K0□□H03□	X8L (Murata)	50Vdc	470pF±10%	3.6×3.5	2.5	5.0	K1	M1
RHEL81H681K0□□H03□	X8L (Murata)	50Vdc	680pF±10%	3.6×3.5	2.5	2.5	A2	DB
RHEL81H681K0□□H03□	X8L (Murata)	50Vdc	680pF±10%	3.6×3.5	2.5	5.0	K1	M1
RHEL81H102K0□□H03□	X8L (Murata)	50Vdc	1000pF±10%	3.6×3.5	2.5	2.5	A2	DB
RHEL81H102K0 H03	X8L (Murata)	50Vdc	1000pF±10%	3.6×3.5	2.5	5.0	K1	M1
RHEL81H152K0 H03	X8L (Murata)	50Vdc	1500pF±10%	3.6×3.5	2.5	2.5	A2	DB
RHEL81H152K0 H03	X8L (Murata)	50Vdc	1500pF±10%	3.6×3.5	2.5	5.0	K1	M1
RHEL81H222K0 H03	X8L (Murata)	50Vdc	2200pF±10%	3.6×3.5	2.5	2.5	A2	DB
RHEL81H222K0 H03	X8L (Murata)	50Vdc	2200pF±10%	3.6×3.5	2.5	5.0	K1	M1
RHEL81H332K0 H03	X8L (Murata)	50Vdc	3300pF±10%	3.6×3.5	2.5	2.5	A2	DB
RHEL81H332K0 H03	X8L (Murata)	50Vdc	3300pF±10%	3.6×3.5	2.5	5.0	K1	M1 DB
RHEL81H472K0 H03	X8L (Murata)	50Vdc 50Vdc	4700pF±10%	3.6×3.5	2.5	2.5 5.0	A2 K1	M1
RHEL81H472K0□□H03□ RHEL81H682K0□□H03□	X8L (Murata)	50Vdc	4700pF±10% 6800pF±10%	3.6×3.5 3.6×3.5	2.5	2.5	A2	DB
RHEL81H682K0 H03	X8L (Murata)	50Vdc	6800pF±10%	3.6×3.5	2.5	5.0	K1	M1
RHEL81H103K0 H03	X8L (Murata)	50Vdc	10000pF±10%	3.6×3.5	2.5	2.5	A2	DB
RHEL81H103K0 H03	X8L (Murata)	50Vdc	10000pF±10%	3.6×3.5	2.5	5.0	K1	M1
RHEL81H153K0 H03	X8L (Murata)	50Vdc	15000pF±10%	3.6×3.5	2.5	2.5	A2	DB
RHEL81H153K0□□H03□	X8L (Murata)	50Vdc	15000pF±10%	3.6×3.5	2.5	5.0	K1	M1
RHEL81H223K0□□H03□	X8L (Murata)	50Vdc	22000pF±10%	3.6×3.5	2.5	2.5	A2	DB
RHEL81H223K0□□H03□	X8L (Murata)	50Vdc	22000pF±10%	3.6×3.5	2.5	5.0	K1	M1
RHEL81H333K0 H03	X8L (Murata)	50Vdc	33000pF±10%	3.6×3.5	2.5	2.5	A2	DB
RHEL81H333K0 H03	X8L (Murata)	50Vdc	33000pF±10%	3.6×3.5	2.5	5.0	K1	M1
RHEL81H473K0□□H03□	X8L (Murata)	50Vdc	47000pF±10%	3.6×3.5	2.5	2.5	A2	DB
RHEL81H473K0□□H03□	X8L (Murata)	50Vdc	47000pF±10%	3.6×3.5	2.5	5.0	K1	M1
RHEL81H683K0□□H03□	X8L (Murata)	50Vdc	68000pF±10%	3.6×3.5	2.5	2.5	A2	DB
RHEL81H683K0□□H03□	X8L (Murata)	50Vdc	68000pF±10%	3.6×3.5	2.5	5.0	K1	M1
RHEL81H104K0 H03	X8L (Murata)	50Vdc	0.10µF±10%	3.6×3.5	2.5	2.5	A2	DB
RHEL81H104K0 H03	X8L (Murata)	50Vdc	0.10µF±10%	3.6×3.5	2.5	5.0	K1	M1
RHEL81H154K1 H03	X8L (Murata)	50Vdc	0.15µF±10%	4.0×3.5	2.5	2.5	A2	DB
RHEL81H154K1 H03	X8L (Murata)	50Vdc	0.15µF±10%	4.0×3.5	2.5	5.0	K1	M1
RHEL81H224K1 H03	X8L (Murata)	50Vdc	0.22µF±10%	4.0×3.5	2.5	2.5	A2	DB
RHEL81H224K1 H03	X8L (Murata)	50Vdc	0.22µF±10%	4.0×3.5	2.5	5.0	K1	M1
RHEL81H334K1 H03	X8L (Murata)	50Vdc	0.33µF±10%	4.0×3.5	2.5	2.5	A2	DB M1
RHEL81H334K1 H03	X8L (Murata)	50Vdc	0.33µF±10%	4.0×3.5	2.5	5.0	K1	M1 DB
RHEL81H474K2 H03 RHEL81H474K2 H03	X8L (Murata) X8L (Murata)	50Vdc 50Vdc	0.47μF±10% 0.47μF±10%	5.5×4.0 5.5×4.0	3.15 3.15	2.5 5.0	A2 K1	M1
RHEL81H684K2 H03	X8L (Murata)	50Vdc	0.68µF±10%	5.5×4.0	3.15	2.5	A2	DB
RHEL81H684K2 H03	X8L (Murata)	50Vdc	0.68μF±10%	5.5×4.0	3.15	5.0	K1	M1
RHEL81H105K2 H03	X8L (Murata)	50Vdc	1.0µF±10%	5.5×4.0	3.15	2.5	A2	DB
RHEL81H105K2	X8L (Murata)	50Vdc	1.0µF±10%	5.5×4.0	3.15	5.0	K1	M1
RHEL81H155K2 H03	X8L (Murata)	50Vdc	1.5µF±10%	5.5×4.0	3.15	2.5	A2	DB
RHEL81H155K2 H03	X8L (Murata)	50Vdc	1.5µF±10%	5.5×4.0	3.15	5.0	K1	M1
RHEL81H225K2 H03	X8L (Murata)	50Vdc	2.2µF±10%	5.5×4.0	3.15	2.5	A2	DB
	· · · · · ·				-			

Continued from the preceding page. ${f \lambda}$

Continued from the preceding pa	ige. a			Dimensions	Dimension	I and Swann	Lood Chulo	Lood Chulo
Part Number	Temp. Char.	Rated Voltage	Capacitance	Dimensions LxW (mm)	Dimension T (mm)	Lead Space F (mm)	Lead Style Code Bulk	Lead Style Code Taping
RHEL81H225K2 H03	X8L (Murata)	50Vdc	2.2µF±10%	5.5×4.0	3.15	5.0	K1	M1
RHEL81H335K3□□H03□	X8L (Murata)	50Vdc	3.3µF±10%	5.5×5.0	4.0	2.5	A2	DB
RHEL81H335K3□□H03□	X8L (Murata)	50Vdc	3.3µF±10%	5.5×5.0	4.0	5.0	K1	M1
RHEL81H475K3□□H03□	X8L (Murata)	50Vdc	4.7µF±10%	5.5×5.0	4.0	2.5	A2	DB
RHEL81H475K3□□H03□	X8L (Murata)	50Vdc	4.7µF±10%	5.5×5.0	4.0	5.0	K1	M1
RHEL81H106MW□□H03□	X8L (Murata)	50Vdc	10μF±20%	5.5×7.5	4.0	5.0	K1	M1
RHEL82A221K0□□H03□	X8L (Murata)	100Vdc	220pF±10%	3.6×3.5	2.5	2.5	A2	DB
RHEL82A221K0□□H03□	X8L (Murata)	100Vdc	220pF±10%	3.6×3.5	2.5	5.0	K1	M1
RHEL82A331K0□□H03□	X8L (Murata)	100Vdc	330pF±10%	3.6×3.5	2.5	2.5	A2	DB
RHEL82A331K0□□H03□	X8L (Murata)	100Vdc	330pF±10%	3.6×3.5	2.5	5.0	K1	M1
RHEL82A471K0□□H03□	X8L (Murata)	100Vdc	470pF±10%	3.6×3.5	2.5	2.5	A2	DB
RHEL82A471K0□□H03□	X8L (Murata)	100Vdc	470pF±10%	3.6×3.5	2.5	5.0	K1	M1
RHEL82A681K0□□H03□	X8L (Murata)	100Vdc	680pF±10%	3.6×3.5	2.5	2.5	A2	DB
RHEL82A681K0□□H03□	X8L (Murata)	100Vdc	680pF±10%	3.6×3.5	2.5	5.0	K1	M1
RHEL82A102K0□□H03□	X8L (Murata)	100Vdc	1000pF±10%	3.6×3.5	2.5	2.5	A2	DB
RHEL82A102K0□□H03□	X8L (Murata)	100Vdc	1000pF±10%	3.6×3.5	2.5	5.0	K1	M1
RHEL82A152K0□□H03□	X8L (Murata)	100Vdc	1500pF±10%	3.6×3.5	2.5	2.5	A2	DB
RHEL82A152K0□□H03□	X8L (Murata)	100Vdc	1500pF±10%	3.6×3.5	2.5	5.0	K1	M1
RHEL82A222K0□□H03□	X8L (Murata)	100Vdc	2200pF±10%	3.6×3.5	2.5	2.5	A2	DB
RHEL82A222K0□□H03□	X8L (Murata)	100Vdc	2200pF±10%	3.6×3.5	2.5	5.0	K1	M1
RHEL82A332K0□□H03□	X8L (Murata)	100Vdc	3300pF±10%	3.6×3.5	2.5	2.5	A2	DB
RHEL82A332K0□□H03□	X8L (Murata)	100Vdc	3300pF±10%	3.6×3.5	2.5	5.0	K1	M1
RHEL82A472K0□□H03□	X8L (Murata)	100Vdc	4700pF±10%	3.6×3.5	2.5	2.5	A2	DB
RHEL82A472K0□□H03□	X8L (Murata)	100Vdc	4700pF±10%	3.6×3.5	2.5	5.0	K1	M1
RHEL82A682K0□□H03□	X8L (Murata)	100Vdc	6800pF±10%	3.6×3.5	2.5	2.5	A2	DB
RHEL82A682K0□□H03□	X8L (Murata)	100Vdc	6800pF±10%	3.6×3.5	2.5	5.0	K1	M1
RHEL82A103K0□□H03□	X8L (Murata)	100Vdc	10000pF±10%	3.6×3.5	2.5	2.5	A2	DB
RHEL82A103K0 H03	X8L (Murata)	100Vdc	10000pF±10%	3.6×3.5	2.5	5.0	K1	M1
RHEL82A153K0 H03	X8L (Murata)	100Vdc	15000pF±10%	3.6×3.5	2.5	2.5	A2	DB
RHEL82A153K0 H03	X8L (Murata)	100Vdc	15000pF±10%	3.6×3.5	2.5	5.0	K1	M1
RHEL82A223K0 H03	X8L (Murata)	100Vdc	22000pF±10%	3.6×3.5	2.5	2.5	A2	DB
RHEL82A223K0 H03	X8L (Murata)	100Vdc	22000pF±10%	3.6×3.5	2.5	5.0	K1	M1
RHEL82A333K1□□H03□	X8L (Murata)	100Vdc	33000pF±10%	4.0×3.5	2.5	2.5	A2	DB
RHEL82A333K1□□H03□	X8L (Murata)	100Vdc	33000pF±10%	4.0×3.5	2.5	5.0	K1	M1
RHEL82A473K1□□H03□	X8L (Murata)	100Vdc	47000pF±10%	4.0×3.5	2.5	2.5	A2	DB
RHEL82A473K1□□H03□	X8L (Murata)	100Vdc	47000pF±10%	4.0×3.5	2.5	5.0	K1	M1
RHEL82A683K1□□H03□	X8L (Murata)	100Vdc	68000pF±10%	4.0×3.5	2.5	2.5	A2	DB
RHEL82A683K1 H03	X8L (Murata)	100Vdc	68000pF±10%	4.0×3.5	2.5	5.0	K1	M1
RHEL82A104K1 H03	X8L (Murata)	100Vdc	0.10µF±10%	4.0×3.5	2.5	2.5	A2	DB
RHEL82A104K1 H03	X8L (Murata)	100Vdc	0.10µF±10%	4.0×3.5	2.5	5.0	K1	M1
RHEL82A154K2□□H03□	X8L (Murata)	100Vdc	0.15µF±10%	5.5×4.0	3.15	2.5	A2	DB
RHEL82A154K2 H03	X8L (Murata)	100Vdc	0.15µF±10%	5.5×4.0	3.15	5.0	K1	M1
RHEL82A224K2 H03	X8L (Murata)	100Vdc	0.22µF±10%	5.5×4.0	3.15	2.5	A2	DB
RHEL82A224K2 H03	X8L (Murata)	100Vdc	0.22µF±10%	5.5×4.0	3.15	5.0	K1	M1

 $Two \ blank \ columns \ are \ filled \ with \ the \ lead \ style \ code. \ Please \ refer \ to \ the \ 3 \ columns \ on \ the \ right for \ the \ appropriate \ code.$

The last blank column is filled with the packaging code. (B: bulk, A: ammo pack) $\,$

Specifications and Test Methods

			Specif	ication			
No.	AEC-Q200) Test Item	Temperature Compensating Type (Char. X8G)	High Dielectric Constant Type (Char. X8L)	AEC-Q200 Test Method		
1	Pre-and Post-Stress Electrical Test			-	-		
	High Tem Exposure		The measured and observed chaspecifications in the following to	•			
		Appearance	No defects or abnormalities		Sit the capacitor for 1000±12h at 150±3°C. Let sit for 24±2h at room condition*, then measure.		
2		Capacitance Change	Within ±3% or ±0.3pF (Whichever is larger)	Within ±12.5%	Pretreatment Perform the heat treatment at 150+0/-10°C for 60±5min and		
		Q/D.F.	Q ≧ 350	0.04 max.	then let sit for 24±2h at room condition*. (for Char. X8L)		
		I.R.	More than $1000 \mathrm{M}\Omega$ or $50 \mathrm{M}\Omega$ • μ	uF (Whichever is smaller)			
	Temperat Cycling	ture	The measured and observed characteristics should satisfy the specifications in the following table.		Perform the 1000 cycles according to the four heat treatments listed in the following table. Let sit for 24±2h at room		
		Appearance	No defects or abnormalities exc coating	ept color change of outer	condition*, then measure. Step 1 2 3 4		
3		Capacitance Change	Within ±5% or ±0.5pF (Whichever is larger)	Within ±12.5%	Temp. (°C) -55+0/-3 Room Temp. 150+3/-0 Room Temp. Time (min) 15±3 1 15±3 1		
		Q/D.F.	Q ≧ 350	0.05 max.	Pretreatment Perform the heat treatment at 150+0/-10°C for 60±5min and		
		I.R.	1000M Ω or 50M Ω • μF min. (Wh	nichever is smaller)	then let sit for 24±2h at room condition*. (for Char. X8L)		
	Moisture Resistance	e	The measured and observed characteristics should satisfy the specifications in the following table.		Apply the 24h heat (25 to 65°C) and humidity (80 to 98%) treatment shown below, 10 consecutive times.		
		Appearance	No defects or abnormalities		Let sit for 24±2h at room condition*, then measure. •Pretreatment		
		Capacitance Change	Within ±5% or ±0.5pF (Whichever is larger)	Within ±12.5%	Perform the heat treatment at 150+0/-10°C for 60±5min and then let sit for 24±2h at room condition*. (for Char. X8L)		
		Q/D.F.	Q ≧ 200	0.05 max.	Humidity Humidity Humidity Humidity (°C) 90-98% 80-98% 80-98% 80-98% 90-98% 90-98% 70		
4		I.R.	500MΩ or 25MΩ • μF min. (Whi	chever is smaller)	65 60 55 40 40 40 40 20 40 40 40 40 40 40 40 40 40 4		
	Biased Humidity		The measured and observed characteristics should satisfy the specifications in the following table.		Apply the rated voltage and DC1.3+0.2/-0V (add $100k\Omega$ resist at $85\pm3^{\circ}$ C and 80 to 85% humidity for $1000\pm12h$.		
		Appearance	No defects or abnormalities		Remove and let sit for 24±2h at room condition*, then measure.		
5		Capacitance Change	Within ±5% or ±0.5pF (Whichever is larger)	Within ±12.5%	The charge/discharge current is less than 50mA. •Pretreatment		
		Q/D.F.	Q ≧ 200	0.05 max.	Perform the heat treatment at 150+0/-10°C for 60±5min and		
		I.R.	500MΩ or 25MΩ • μF min. (Whi	chever is smaller)	then let sit for 24±2h at room condition*. (for Char. X8L)		
	Operational Life		The measured and observed characteristics should satisfy the specifications in the following table.		Apply 150% of the rated voltage for 1000±12h at 150±3°C.		
		Appearance	No defects or abnormalities exc coating	ept color change of outer	Let sit for 24±2h at room condition*, then measure. The charge/discharge current is less than 50mA.		
6		Capacitance Change	Within ±3% or ±0.3pF (Whichever is larger)	Within ±12.5%	•Pretreatment Apply test voltage for 60±5 min at test temperature.		
		Q/D.F.	Q ≧ 350	0.04 max.	Remove and let sit for 24±2h at room condition*. (for Char. X8L)		
		I.R.	1000MΩ or 50MΩ • μF min. (Wh	nichever is smaller)	, ,		
7	7 External Visual		No defects or abnormalities		Visual inspection		
8	Physical [Dimension	Within the specified dimensions		Using calipers and micrometers		
9	Marking		To be easily legible		Visual inspection		

 $^{^{*}}$ "room condition" Temperature: 15 to 35°C, Relative humidity: 45 to 75%, Atmosphere pressure: 86 to 106kPa

Continued on the following page. 🖊

Specifications and Test Methods

Continued from the preceding page. \searrow

			Specif	ication				
No.	AEC-Q200) Test Item	Temperature Compensating Type (Char. X8G)	High Dielectric Constant Type (Char. X8L)	AEC-Q200 Test Method			
10		Appearance	No defects or abnormalities		Per MIL-STD-202 Method 215			
		Capacitance	Within the specified tolerance		Solvent 1: 1 part (by volume) of isopropyl alcohol 3 parts (by volume) of mineral spirits			
	Resistance	Q/D.F.	Q ≧ 1000	0.025 max.	Solvent 2: Terpene defluxer			
	to Solvents	I.R.	More than 10000M Ω or 500M Ω • μ F (Whichever is smaller)		Solvent 3: 42 parts (by volume) of water 1 part (by volume) of propylene glycol monomethyl ether 1 part (by volume) of monoethanolamine			
11		Appearance	No defects or abnormalities		Three shocks in each direction should be applied along 3			
	Mechanical Shock	Capacitance	Within the specified tolerance		mutually perpendicular axes of the test specimen (18 shocks). The specified test pulse should be Half-sine and should			
		Q/D.F.	Q ≧ 1000	0.025 max.	have a duration: 0.5ms, peak value: 1500G and velocity change: 4.7m/s.			
		Appearance	No defects or abnormalities		The capacitor should be subjected to a simple harmonic motion			
		Capacitance	Within the specified tolerance		having a total amplitude of 1.5mm, the frequency being varied uniformly between the approximate limits of 10 and 2000Hz.			
12	Vibration	Q/D.F.	Q ≧ 1000	0.025 max.	The frequency range, from 10 to 2000Hz and return to 10Hz, should be traversed in approximately 20min. This motion should be applied for 12 items in each 3 mutually perpendicular directions (total of 36 times).			
	Resistance Soldering F	Heat	The measured and observed chaspecifications in the following to	•	The lead wires should be immersed in the melted solder 1.5 to			
	(Non-Preheat)	Appearance	No defects or abnormalities		2.0mm from the root of terminal at 260±5°C for 10±1s. Pre-treatment			
13 ' 1		Capacitance	Within ±2.5% or ±0.25pF	Within ±7.5%	Capacitor should be stored at 150+0/-10°C for 1h, then place			
		Change	(Whichever is larger)		at room temperature for 24±2h before initial measurement. (For Char. X8L)			
		Dielectric Strength (Between Terminals)	No defects		Post-treatment Capacitor should be stored for 24±2h at room condition*.			
	Resistance to		The measured and observed cha		First the capacitor should be stored at 120+0/-5°C for 60+0/-5			
	Soldering F (On-Preheat)		specifications in the following to	able.	Then, the lead wires should be immersed in the melted solder 1			
13	(Oli-Freileau)	Appearance			to 2.0mm from the root of terminal at 260±5°C for 7.5+0/-1s. Pre-treatment			
2		Capacitance Change	Within ±2.5% or ±0.25pF (Whichever is larger)	Within ±7.5%	Capacitor should be stored at 150+0/-10°C for 1h, then place at room temperature for 24±2h before initial measurement. (For			
	Dielectric Strength (Between Terminals		No defects		Char. X8L) Post-treatment Capacitor should be stored for 24±2h at room condition*.			
	Resistance to Soldering Heat		The measured and observed characteristics should satisfy the specifications in the following table.		Test condition Temperature of iron-tip: 350±10°C			
	(Soldering Iron Method)	Appearance	No defects or abnormalities		Soldering time: 3.5±0.5s. Soldering position			
13	,	Capacitance Change	Within ±2.5% or ±0.25pF (Whichever is larger)	Within ±7.5%	Straight Lead: 1.5 to 2.0mm from the root of terminal. Crimp Lead: 1.5 to 2.0mm from the end of lead bend.			
3		Dielectric Strength (Between Terminals)	No defects		Pre-treatment Capacitor should be stored at 150+0/-10°C for 1h, then place at room temperature for 24±2h before initial measurement. (For Char. X8L) Post-treatment Capacitor should be stored for 24±2h at room condition*.			
	Thermal Shock		The measured and observed chaspecifications in the following to		Perform the 300 cycles according to the two heat treatments listed in the following table (Maximum transfer time is 20s).			
		Appearance No defects or abnormalities			Let sit for 24±2h at room condition*, then measure.			
14		Capacitance Change	Within ±5% or ±0.5pF (Whichever is larger)	Within ±12.5%	Step 1 2 Temp. (°C) -55+0/-3 150+3/-0 Time (min) 15,3 15,3			
		Q/D.F.	Q ≧ 350	0.05 max.				
		I.R.	1000MΩ or 50MΩ • μ F min. (Whichever is smaller)		Perform the heat treatment at 150+0/-10°C for 60±5min an then let sit for 24±2h at room condition*. (for Char. X8L)			
		Appearance	No defects or abnormalities					
		Capacitance	Within the specified tolerance		-			
15	ESD	Q/D.F.	Q ≧ 1000	0.025 max.	Per AEC-Q200-002			
		I.R.	More than $10000M\Omega$ or $500M\Omega$	μF (Whichever is smaller)				
			i.		1			

 $[\]hbox{* "room condition"} \quad \hbox{Temperature: 15 to 35°C, Relative humidity: 45 to 75\%, Atmosphere pressure: 86 to 106 kPa}$

Continued on the following page. ${\cal J}$

Specifications and Test Methods

Continued from the preceding page.

Con	tinued fron	n the prece	eding page. 🔰	- "				
No	AEC 0200	Tost Itom			ication	AEC-Q200 Test Method		
NO.	AEC-Q200) rest item	Temperature Compensating Type (Char. X8G)		High Dielectric Constant Type (Char. X8L)	AEC-Q200	J Test Method	
16	Solderabi	lity			ith uniform coating on the axial	The terminal of a capacitor is dipped into a solution of ethanol (JIS-K-8101) and rosin (JIS-K-5902) (25%rosin in weight propotion) and then into molten solder (JIS-Z-3282) for 2±0.5s. In both cases the depth of dipping is up to about 1.5 to 2mm from the terminal body. Temp. of solder: 245±5°C Lead Free Solder (Sn-3.0Ag-0.5Cu)		
		Appearance	No defects or a	hnormalities		235±5°C H60A or H63A Eutectic Solder Visual inspection		
		Capacitance		cified tolerance		The capacitance, Q/D.F. should be measured at		
			Q ≧ 1000		0.025 max.	C ≤ 1000pF 1±0 10μF ≥ C > 1000pF 1±0	in the table. quency Voltage 0.1MHz AC0.5 to 5V (r.m.s.) 0.1kHz AC1±0.2V (r.m.s.) 0±24Hz AC0.5±0.1V (r.m.s.)	
		Insulation	Room Temperature	10000MΩ or 5 (Whichever is s	00MΩ • μF min. smaller)	The insulation resistance shou DC voltage not exceeding the temperature and humidity and (Charge/Discharge current \(\le \) \(\le \)	d within 2min of charging.	
17	Electrical Charac- terization	Resistance (I.R.)	High 100MΩ or 5MΩ Temperature (Whichever is si		•	The insulation resistance shou a DC voltage not exceeding the temperature and humidity and (Charge/Discharge current § 5	d within 2min of charging.	
	CONTRACTOR	Dielectric Strength	Between Terminals	No defects or a	abnormalities	The capacitor should not be d 300% of the rated voltage (fo 250% of the rated voltage (fo the terminations for 1 to 5s. (Charge/Discharge current \(\) \(\) \(\) \(\)	r Char. X8G) or DC voltage of r Char. X8L) is applied between	
			Body Insulation	No defects or a	abnormalities	The capacitor is placed in a co with metal balls of 1mm diam that each terminal, short-circo approximately 2mm from the 250% of the rated DC voltage impressed for 1 to 5s between capacitor terminals and metal (Charge/Discharge current § 5	eter so uit is kept balls, and is liballs.	
18	Terminal Strength	Tensile Strength	Termination no	to be broken or loosened		As in the figure, fix the capacit apply the force gradually to ear in the radial direction of the cauntil reaching 10N and then k force applied for 10±1s.	ach lead apacitor	
		Bending Strength	Termination no	ot to be broken o	r loosened			
19	Capacitance 1.9 Temperature Characteristics		mperature X8G 0±30ppm/°C		Within ±15% (Temp. Range: -55 to +125°C) Within +15/-40% (Temp. Range: +125 to +150°C)	Step 1 2 3 4 5 The temperature coefficient of change is determined using the step 3 as a reference. • Pretreatment	at 150+0/-10°C for 60±5 min and n condition*.	

 $^{^*\ \}hbox{``room condition''}\ \ \ \text{Temperature: 15 to 35°C, Relative humidity: 45 to 75\%, Atmosphere pressure: 86 to 106 kPa}$

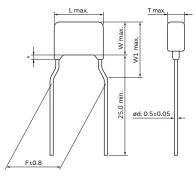
200°C Operation Leaded MLCC for Automotive

RHS Series (DC100V-DC500V)

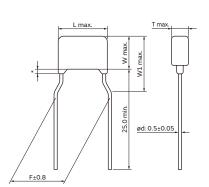
Features

- 1. Small size and large capacitance
- 2. Low ESR and ESL suitable for high frequency
- 3. Applied maximum temperature up to 200°C Note: Maximum accumulative time is within 2000 hours.
- 4. Meet AEC-Q200, ISO7637-2 (surge test) requirement
- 5. Meet LF (Lead Free) and HF (Halogen Free)
- 6. Flow soldering and welding are available. (Re-flow soldering is not available.)
- 7. If copper wire is necessary at welding process, copper wire is available based on request.



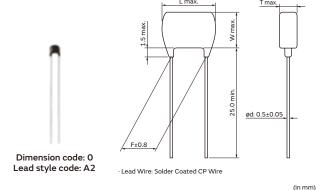


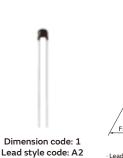
- Coating extension does not exceed the end of the lead bend.
- Lead Wire: Solder Coated CP Wire (in mm)

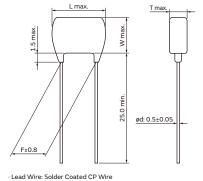


Dimension code: 1 Lead style code: K1

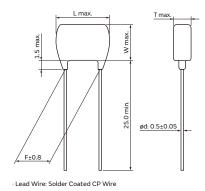
* Coating extension does not exceed the end of the lead bend. Lead Wire: Solder Coated CP Wire





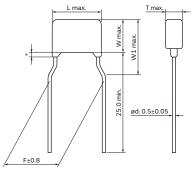






(in mm)





- * Coating extension does not exceed the end of the lead bend. Lead Wire: Solder Coated CP Wire

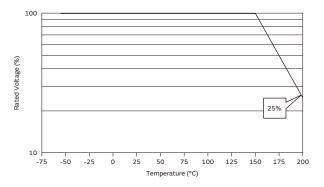
Dimensions

Dimensions and	Dimensions (mm)										
Lead Style Code	L	W	W1	Т	F	d					
0A2/0DG	3.9	3.5	-		2.5	0.5					
0K1/0M2	3.9	3.5	6.0		5.0	0.5					
1A2/1DG	4.2	3.5	-	See the individual	2.5	0.5					
1K1/1M2	4.2	3.5	5.0	product specification	5.0	0.5					
2A2/2DG	5.5	4.0	-		2.5	0.5					
2K1/2M1	5.5	4.0	6.0		5.0	0.5					

Rated Voltage

When the product temperature exceeds 150 $^{\circ}$ C, please use this product within the voltage and temperature derated conditions in the figure below.

Maximum operating temperature



Marking

Rated Voltage	DC1	00V	DC200V	DC500V
Dimension Code Temp. Char.	ccg	X9Q	UI	ŊĴ
0	4	N	_	_
1	1011	\103K	2 101J	_
2	_	© 224 K1N	(M103) J62	(M101) J92
Temperature Characteristics	Marked with code (CCG Ch	nar.: 4, UNJ Char.: 2, X9Q Ch	ar.: N)	
Nominal Capacitance	Marked with 3 figures			
Capacitance Tolerance	Marked with code			
Rated Voltage	,	V: 1, DC200V: 6, DC500V: 9 fer to the marking example.	•	
Manufacturer's Identification	Marked with M A part is omitted (Please re	efer to the marking example	.)	

■ Temperature Compensating Type, CCG/UNJ Characteristics

Part Number	Temp. Char.	Rated Voltage	Capacitance	Dimensions LxW (mm)	Dimension T (mm)	Lead Space F (mm)	Lead Style Code Bulk	Lead Style Code Taping
RHS7G2A101J0 H01	CCG (Murata)	100Vdc	100pF±5%	3.9×3.5	2.6	2.5	A2	DG
RHS7G2A101J0 H01	CCG (Murata)	100Vdc	100pF±5%	3.9×3.5	2.6	5.0	K1	M2
RHS7G2A121J0 H01	CCG (Murata)	100Vdc	120pF±5%	3.9×3.5	2.6	2.5	A2	DG
RHS7G2A121J0 H01	CCG (Murata)	100Vdc	120pF±5%	3.9×3.5	2.6	5.0	K1	M2
RHS7G2A151J0 H01	CCG (Murata)	100Vdc	150pF±5%	3.9×3.5	2.6	2.5	A2	DG
RHS7G2A151J0 H01	CCG (Murata)	100Vdc	150pF±5%	3.9×3.5	2.6	5.0	K1	M2
RHS7G2A181J0 H01	CCG (Murata)	100Vdc	180pF±5%	3.9×3.5	2.6	2.5	A2	DG
RHS7G2A181J0 H01	CCG (Murata)	100Vdc	180pF±5%	3.9×3.5	2.6	5.0	K1	M2
RHS7G2A221J0 H01	CCG (Murata)	100Vdc	220pF±5%	3.9×3.5	2.6	2.5	A2	DG
RHS7G2A221J0 H01	CCG (Murata)	100Vdc	220pF±5%	3.9×3.5	2.6	5.0	K1	M2
RHS7G2A271J0 H01	CCG (Murata)	100Vdc	270pF±5%	3.9×3.5	2.6	2.5	A2	DG
RHS7G2A271J0□□H01□	CCG (Murata)	100Vdc	270pF±5%	3.9×3.5	2.6	5.0	K1	M2
RHS7G2A331J0 H01	CCG (Murata)	100Vdc	330pF±5%	3.9×3.5	2.6	2.5	A2	DG
RHS7G2A331J0□□H01□	CCG (Murata)	100Vdc	330pF±5%	3.9×3.5	2.6	5.0	K1	M2

Continued from the preceding page. \searrow

Continued from the preceding pa	age. 3			Dimensions	Dii	Local Curren	Land Chala	Lood Chido
Part Number	Temp. Char.	Rated Voltage	Capacitance	Dimensions LxW	Dimension T	Lead Space F	Lead Style Code	Lead Style Code
DUC7034301 IO□□U01□			200=5.5%	(mm)	(mm)	(mm)	Bulk	Taping
RHS7G2A391J0 H01	CCG (Murata)	100Vdc	390pF±5%	3.9×3.5 3.9×3.5	2.6	2.5 5.0	A2	DG
RHS7G2A391J0 H01	CCG (Murata)	100Vdc	390pF±5%	'		K1	M2	
RHS7G2A471J0 H01	CCG (Murata)	100Vdc	470pF±5%	3.9×3.5	2.6	2.5	A2	DG
RHS7G2A471J0 H01	CCG (Murata)	100Vdc	470pF±5%	3.9×3.5	2.6	5.0	K1	M2
RHS7G2A561J0 H01	CCG (Murata)	100Vdc	560pF±5%	3.9×3.5	2.6	2.5	A2	DG
RHS7G2A561J0 H01	CCG (Murata)	100Vdc	560pF±5%	3.9×3.5	2.6	5.0	K1	M2
RHS7G2A681J0 H01	CCG (Murata)	100Vdc	680pF±5%	3.9×3.5	2.6	2.5	A2	DG
RHS7G2A681J0 H01	CCG (Murata)	100Vdc	680pF±5%	3.9×3.5	2.6	5.0	K1	M2
RHS7G2A821J0 H01	CCG (Murata)	100Vdc 100Vdc	820pF±5%	3.9×3.5 3.9×3.5	2.6	2.5 5.0	A2 K1	DG M2
RHS7G2A821J0 H01	CCG (Murata)	100Vdc	820pF±5%		2.6	2.5	A2	DG
RHS7G2A102J0□□H01□ RHS7G2A102J0□□H01□	CCG (Murata)	100Vdc	1000pF±5% 1000pF±5%	3.9×3.5 3.9×3.5	2.6	5.0	K1	M2
RHS7G2A152J0 H01	CCG (Murata)	100Vdc	1500pF±5%	3.9×3.5	2.6	2.5	A2	DG
RHS7G2A152J0 H01	CCG (Murata)	100Vdc	1500pF±5%	3.9×3.5	2.6	5.0	K1	M2
RHS7G2A222J1 H01	CCG (Murata)	100Vdc	2200pF±5%	4.2×3.5	2.8	2.5	A2	DG
RHS7G2A222J1 H01	CCG (Murata)	100Vdc	2200pF±5%	4.2×3.5	2.8	5.0	K1	M2
RHS7G2A272J1 H01	CCG (Murata)	100Vdc	2700pF±5%	4.2×3.5 4.2×3.5	2.8	2.5	A2	DG
RHS7G2A272J1 H01	CCG (Murata)	100Vdc	2700pF±5% 2700pF±5%	4.2×3.5 4.2×3.5	2.8	5.0	K1	M2
RHS7G2A332J1 H01	CCG (Murata)	100Vdc	3300pF±5%	4.2×3.5	2.8	2.5	A2	DG
RHS7G2A332J1 H01	CCG (Murata)	100Vdc	3300pF±5%	4.2×3.5	2.8	5.0	K1	M2
RHS7J2D101J1 H01	UNJ (Murata)	200Vdc	100pF±5%	4.2×3.5	2.8	2.5	A2	DG
RHS7J2D101J1	UNJ (Murata)	200Vdc	100pF±5%	4.2×3.5	2.8	5.0	K1	M2
RHS7J2D151J1	UNJ (Murata)	200Vdc	150pF±5%	4.2×3.5	2.8	2.5	A2	DG
RHS7J2D151J1 H01	UNJ (Murata)	200Vdc	150pF±5%	4.2×3.5	2.8	5.0	K1	M2
RHS7J2D221J1 H01	UNJ (Murata)	200Vdc	220pF±5%	4.2×3.5	2.8	2.5	A2	DG
RHS7J2D221J1 H01	UNJ (Murata)	200Vdc	220pF±5%	4.2×3.5	2.8	5.0	K1	M2
RHS7J2D331J1 H01	UNJ (Murata)	200Vdc	330pF±5%	4.2×3.5	2.8	2.5	A2	DG
RHS7J2D331J1□□H01□	UNJ (Murata)	200Vdc	330pF±5%	4.2×3.5	2.8	5.0	K1	M2
RHS7J2D471J1□□H01□	UNJ (Murata)	200Vdc	470pF±5%	4.2×3.5	2.8	2.5	A2	DG
RHS7J2D471J1□□H01□	UNJ (Murata)	200Vdc	470pF±5%	4.2×3.5	2.8	5.0	K1	M2
RHS7J2D681J1□□H01□	UNJ (Murata)	200Vdc	680pF±5%	4.2×3.5	2.8	2.5	A2	DG
RHS7J2D681J1 H01	UNJ (Murata)	200Vdc	680pF±5%	4.2×3.5	2.8	5.0	K1	M2
RHS7J2D102J1 H01	UNJ (Murata)	200Vdc	1000pF±5%	4.2×3.5	2.8	2.5	A2	DG
RHS7J2D102J1 H01	UNJ (Murata)	200Vdc	1000pF±5%	4.2×3.5	2.8	5.0	K1	M2
RHS7J2D152J1 H01	UNJ (Murata)	200Vdc	1500pF±5%	4.2×3.5	2.8	2.5	A2	DG
RHS7J2D152J1□□H01□	UNJ (Murata)	200Vdc	1500pF±5%	4.2×3.5	2.8	5.0	K1	M2
RHS7J2D222J1□□H01□	UNJ (Murata)	200Vdc	2200pF±5%	4.2×3.5	2.8	2.5	A2	DG
RHS7J2D222J1□□H01□	UNJ (Murata)	200Vdc	2200pF±5%	4.2×3.5	2.8	5.0	K1	M2
RHS7J2D332J1 H01	UNJ (Murata)	200Vdc	3300pF±5%	4.2×3.5	2.8	2.5	A2	DG
RHS7J2D332J1 H01	UNJ (Murata)	200Vdc	3300pF±5%	4.2×3.5	2.8	5.0	K1	M2
RHS7J2D472J1 H01	UNJ (Murata)	200Vdc	4700pF±5%	4.2×3.5	2.8	2.5	A2	DG
RHS7J2D472J1 H01	UNJ (Murata)	200Vdc	4700pF±5%	4.2×3.5	2.8	5.0	K1	M2
RHS7J2D682J2 H01	UNJ (Murata)	200Vdc	6800pF±5%	5.5×4.0	3.3	2.5	A2	DG
RHS7J2D682J2□□H01□	UNJ (Murata)	200Vdc	6800pF±5%	5.5×4.0	3.3	5.0	K1	M2
RHS7J2D103J2 H01	UNJ (Murata)	200Vdc	10000pF±5%	5.5×4.0	3.3	2.5	A2	DG
RHS7J2D103J2□□H01□	UNJ (Murata)	200Vdc	10000pF±5%	5.5×4.0	3.3	5.0	K1	M2
RHS7J2H101J2 H01	UNJ (Murata)	500Vdc	100pF±5%	5.5×4.0	3.3	5.0	K1	M2
RHS7J2H151J2 H01	UNJ (Murata)	500Vdc	150pF±5%	5.5×4.0	3.3	5.0	K1	M2
RHS7J2H221J2 H01	UNJ (Murata)	500Vdc	220pF±5%	5.5×4.0	3.3	5.0	K1	M2
RHS7J2H331J2 H01	UNJ (Murata)	500Vdc	330pF±5%	5.5×4.0	3.3	5.0	K1	M2
RHS7J2H471J2 H01	UNJ (Murata)	500Vdc	470pF±5%	5.5×4.0	3.3	5.0	K1	M2
RHS7J2H681J2 H01	UNJ (Murata)	500Vdc	680pF±5%	5.5×4.0	3.3	5.0	K1	M2
RHS7J2H102J2 H01	UNJ (Murata)	500Vdc	1000pF±5%	5.5×4.0	3.3	5.0	K1	M2
RHS7J2H152J2 H01	UNJ (Murata)	500Vdc	1500pF±5%	5.5×4.0	3.3	5.0	K1	M2
RHS7J2H222J2 H01	UNJ (Murata)	500Vdc	2200pF±5%	5.5×4.0	3.3	5.0	K1	M2
RHS7J2H332J2 H01	UNJ (Murata)	500Vdc	3300pF±5%	5.5×4.0	3.3	5.0	K1	M2
RHS7J2H472J2 H01	UNJ (Murata)	500Vdc	4700pF±5%	5.5×4.0	3.3	5.0	K1	M2

Part Number	Temp. Char.	Rated Voltage	Capacitance	Dimensions LxW (mm)	Dimension T (mm)	Lead Space F (mm)	Lead Style Code Bulk	Lead Style Code Taping
RHSQ92A472K0□□H01□	X9Q (Murata)	100Vdc	4700pF±10%	3.9×3.5	2.6	2.5	A2	DG
RHSQ92A472K0□□H01□	X9Q (Murata)	100Vdc	4700pF±10%	3.9×3.5	2.6	5.0	K1	M2
RHSQ92A682K0□□H01□	X9Q (Murata)	100Vdc	6800pF±10%	3.9×3.5	2.6	2.5	A2	DG
RHSQ92A682K0□□H01□	X9Q (Murata)	100Vdc	6800pF±10%	3.9×3.5	2.6	5.0	K1	M2
RHSQ92A103K0□□H01□	X9Q (Murata)	100Vdc	10000pF±10%	3.9×3.5	2.6	2.5	A2	DG
RHSQ92A103K0□□H01□	X9Q (Murata)	100Vdc	10000pF±10%	3.9×3.5	2.6	5.0	K1	M2
RHSQ92A153K0□□H01□	X9Q (Murata)	100Vdc	15000pF±10%	3.9×3.5	2.6	2.5	A2	DG
RHSQ92A153K0□□H01□	X9Q (Murata)	100Vdc	15000pF±10%	3.9×3.5	2.6	5.0	K1	M2
RHSQ92A223K0□□H01□	X9Q (Murata)	100Vdc	22000pF±10%	3.9×3.5	2.6	2.5	A2	DG
RHSQ92A223K0□□H01□	X9Q (Murata)	100Vdc	22000pF±10%	3.9×3.5	2.6	5.0	K1	M2
RHSQ92A333K1□□H01□	X9Q (Murata)	100Vdc	33000pF±10%	4.2×3.5	2.8	2.5	A2	DG
RHSQ92A333K1□□H01□	X9Q (Murata)	100Vdc	33000pF±10%	4.2×3.5	2.8	5.0	K1	M2
RHSQ92A473K1□□H01□	X9Q (Murata)	100Vdc	47000pF±10%	4.2×3.5	2.8	2.5	A2	DG
RHSQ92A473K1□□H01□	X9Q (Murata)	100Vdc	47000pF±10%	4.2×3.5	2.8	5.0	K1	M2
RHSQ92A683K1□□H01□	X9Q (Murata)	100Vdc	68000pF±10%	4.2×3.5	2.8	2.5	A2	DG
RHSQ92A683K1□□H01□	X9Q (Murata)	100Vdc	68000pF±10%	4.2×3.5	2.8	5.0	K1	M2
RHSQ92A104K1□□H01□	X9Q (Murata)	100Vdc	0.1µF±10%	4.2×3.5	2.8	2.5	A2	DG
RHSQ92A104K1□□H01□	X9Q (Murata)	100Vdc	0.1µF±10%	4.2×3.5	2.8	5.0	K1	M2
RHSQ92A154K2□□H01□	X9Q (Murata)	100Vdc	0.15µF±10%	5.5×4.0	3.3	2.5	A2	DG
RHSQ92A154K2 H01	X9Q (Murata)	100Vdc	0.15µF±10%	5.5×4.0	3.3	5.0	K1	M2
RHSQ92A224K2 H01	X9Q (Murata)	100Vdc	0.22µF±10%	5.5×4.0	3.3	2.5	A2	DG
RHSQ92A224K2□□H01□	X9Q (Murata)	100Vdc	0.22µF±10%	5.5×4.0	3.3	5.0	K1	M2

Two blank columns are filled with the lead style code. Please refer to the 3 columns on the right for the appropriate code.

The last blank column is filled with the packaging code. (B: bulk, A: ammo pack)

Temperature Compensating Type Specifications and Test Methods

No.	AEC-Q200	Test Item	Specifications	AEC-Q200 Test Method					
1	Pre-and P	ost-Stress Test		-					
	High	Appearance	No defects or abnormalities except color change of outer coating						
2	Temperature Exposure	Capacitance Change	Within ±3% or ±0.3pF (Whichever is larger)	Sit the capacitor for 1000±12h at 200±5°C. Let sit for 24±2h a room condition*, then measure.					
	(Storage)	Q	Q ≧ 350						
		I.R.	1000MΩ min.						
		Appearance	No defects or abnormalities except color change of outer coating	Perform the 1000 cycles according to the four heat treatments listed in the following table. Let sit for 24±2h at room condition*,					
3	Temperature Cycling	Capacitance Change	Within ±5% or ±0.5pF (Whichever is larger)	then measure Step					
		Q	Q ≧ 350	Temp. (°C) -55+0/-3 Room Temp. 200+5/-0 Room Temp.					
		I.R.	1000MΩ min.	Time (min) 15±3 1 15±3 1					
		Appearance	No defects or abnormalities	Apply the 24h heat (25 to 65°C) and humidity (80 to 98%)					
		Capacitance Change	Within ±5% or ±0.5pF (Whichever is larger)	treatment shown below, 10 consecutive times. Let sit for 24±2h at room condition*, then measure.					
		Q	Q ≧ 200	Humidity Humidity Humidity Humidity (°C) 90-98% 80-98% 90-98% 80-98% 90-98% 90-98%					
4	Moisture Resistance	l.R.	500MΩ min.	65 50 50 40 8 30 8 30 6 25 50 10 10 10 10 10 10 10 10 10 1					
		Appearance	No defects or abnormalities						
5	Biased Humidity	Capacitance Change	Within ±5% or ±0.5pF (Whichever is larger)	Apply the rated voltage and DC1.3+0.2/-0 V (add 100kΩ resistor) at 85±3°C and 80 to 85% humidity for 1000±12h. Remove and let sit for 24±2h at room condition*, then measure.					
	riamiaicy	Q	Q ≧ 200	The charge/discharge current is less than 50mA.					
		I.R.	500MΩ min.						
		Appearance	No defects or abnormalities except color change of outer coating						
6	Operational Life	Capacitance Change	Within ±3% or ±0.3pF (Whichever is larger)	Apply 25% of the rated voltage for 1000±12h at 200±5°C. Let sit for 24±2h at room condition*, then measure The charge/discharge current is less than 50mA.					
		Q	Q ≧ 350						
		I.R.	1000MΩ min.						
7	External \	/isual	No defects or abnormalities	Visual inspection					
8	Physical D	Dimension	Within the specified dimensions	Using calipers and micrometers					
9	Marking		To be easily legible	Visual inspection					
		Appearance	No defects or abnormalities	Per MIL-STD-202 Method 215					
		Capacitance	Within the specified tolerance	Solvent 1: 1 part (by volume) of isopropyl alcohol 3 parts (by volume) of mineral spirits					
10	Resistance	Q	Q ≧ 1000	Solvent 2: Terpene defluxer					
	to Solvents	I.R.	10000MΩ min.	Solvent 3: 42 parts (by volume) of water 1part (by volume) of propylene glycol monomethyl ether 1 part (by volume) of monoethanolamine					
		Appearance	No defects or abnormalities	Three shocks in each direction should be applied along					
11	Mechanical	Capacitance	Within the specified tolerance	3 mutually perpendicular axes of the test specimen (18 shocks). The specified test pulse should be Half-sine and should have a					
	Shock	· · · · · · · · · · · · · · · · · · ·		duration: 0.5ms, peak value: 1500G and velocity change: 4.7m/s.					

 $^{^{\}star\, \text{"room condition"}} \quad \text{Temperature: 15 to 35°C, Relative humidity: 45 to 75\%, Atmosphere pressure: 86 to 106 kPa}$

Continued on the following page. \nearrow

Temperature Compensating Type Specifications and Test Methods

Continued from the preceding page.

No.	AEC-Q200	Test Item	Specifications	AEC-Q200 Test Method				
		Appearance	No defects or abnormalities	The capacitor should be subjected to a simple harmonic motion				
		Capacitance	Within the specified tolerance	having a total amplitude of 1.5mm, the frequency being varied uniformly between the approximate limits of 10 and 2000Hz.				
12	Vibration	Q	Q ≧ 1000	The frequency range, from 10 to 2000Hz and return to 10Hz, should be traversed in approximately 20min. This motion should be applied for 12 items in each 3 mutually perpendicular directions (total of 36 times).				
		Appearance	No defects or abnormalities					
13	Resistance to	Capacitance Change	Within ±2.5% or ±0.25pF (Whichever is larger)	The lead wires should be immersed in the melted solder 1.5 to 2.0mm from the root of terminal at 260±5°C for 10±1s.				
1	Soldering Heat (Non-Preheat)	Dielectric Strength (Between Terminals)	No defects	Post-treatment Capacitor should be stored for 24±2h at room condition*.				
		Appearance	No defects or abnormalities					
13	Resistance to	Capacitance Change	Within ±2.5% or ±0.25pF (Whichever is larger)	First the capacitor should be stored at 120+0/-5°C for 60+0/-5s. Then, the lead wires should be immersed in the melted solder 1.5 to 2.0mm from the root of terminal at 260±5°C for				
2	Soldering Heat (On-Preheat)	Dielectric Strength (Between Terminals)	No defects	7.5+0/-1s. Post-treatment Capacitor should be stored for 24±2h at room condition*.				
		Appearance	No defects or abnormalities	Test condition				
13	Resistance to Soldering Heat	Capacitance Change	Within ±2.5% or ±0.25pF (Whichever is larger)	Termperature of iron-tip: 350±10°C Soldering time: 3.5±0.5s. Soldering position				
3	(soldering iron method)	Dielectric Strength (Between Terminals)	No defects	Straight Lead: 1.5 to 2.0mm from the root of terminal. Crimp Lead: 1.5 to 2.0mm from the end of lead bend. Post-treatment Capacitor should be stored for 24±2h at room condition*.				
		Appearance	No defects or abnormalities	Perform the 300 cycles according to the two heat treatments				
14	Thermal	Capacitance Change	Within ±5% or ±0.5pF (Whichever is larger)	listed in the following table (Maximum transfer time is 20s). Let sit for 24±2h at room condition*, then measure.				
	Shock	Q	Q ≧ 350	Step 1 2 Temp. (°C) -55+0/-3 200+5/-0				
		I.R.	1000MΩ min.	Time (min) 15±3 15±3				
		Appearance	No defects or abnormalities					
		Capacitance	Within the specified tolerance					
15	ESD	Q	Q ≧ 1000	Per AEC-Q200-002				
		I.R.	10000MQ min.					
16			Lead wire should be soldered with uniform coating on the axial direction over 95% of the circumferential direction.	The terminal of a capacitor is dipped into a solution of ethanol (JIS-K-8101) and rosin (JIS-K-5902) (25% rosin in weight propotion) and then into molten solder (JIS-Z-3282) for 2±0.5s. In both cases the depth of dipping is up to about 1.5 to 2mm from the terminal body. Temp. of solder: 245±5°C Lead Free Solder (Sn-3.0Ag-0.5Cu)				

^{* &}quot;room condition" Temperature: 15 to 35°C, Relative humidity: 45 to 75%, Atmosphere pressure: 86 to 106kPa

Continued on the following page. \nearrow

Temperature Compensating Type Specifications and Test Methods

Continued from the preceding page. \searrow

No.	AEC-Q200) Test Item	Specifi	ıcations	AEC-Q200) Test Method			
		Appearance	No defects or abnormalities		Visual inspection				
		Capacitance	Within the specified tolerance		The capacitance, Q should be r frequency and voltage shown i				
		Q	Q ≧ 1000		C ≤ 1000pF 1±0 10μF ≥ C > 1000pF 1±0	Voltage 1.1MHz			
		I.R.	Room Temperature	10000MΩ min.	The insulation resistance should be measured at 25±3°C with a DC voltage not exceeding the rated voltage at normal temperature and humidity and within 2min of charging. (Charge/Discharge current ≤ 50mA)				
		i.k.	High Temperature 20MΩ min.		The insulation resistance should be measured at 200±5°C with a DC voltage not exceeding 25% of the rated voltage at normal temperature and humidity and within 2min of charging. (Charge/Discharge current ≤ 50mA)				
17	Electrical Charac- terization		Between Terminals	No defects or abnormalities	The capacitor should not be de applied between the terminati (Charge/Discharge current ≤ 5 Rated Voltage DC100V DC200V DC500V				
		Dielectric Strength		No defects or abnormalities	The capacitor is placed in a cormetal balls of 1mm diameters terminal, short-circuit, is kept a 2mm from the balls as shown and voltage in table is impressibetween capacitor terminals a metal balls. (Charge/Discharge current ≤ 5	so that each approximately in the figure, ed for 1 to 5s Approx. 2mm and			
					Rated Voltage DC100V, DC200V DC500V	Test Voltage 250% of the rated voltage 150% of the rated voltage			
18	Terminal Strength	Tensile Strength	Termination not to be broken o	r loosened	As in the figure, fix the capacitor body, apply the force gradually to each lead in the radial direction of the capacitor until reaching 10N and then keep the force applied for 10±1s.				
		Bending Strength			Each lead wire should be subjected to a force of 2.5N and then be bent 90° at the point of egress in one direction. Each wire is then returned to the original position and bent 90° in the opposite direction at the rate of one bend per 2 to 3s.				
					The capacitance change should each specified temperature sto				
			Within the specified Tolerance		Step 1	Temperature (°C) 25±2			
				rature Coefficient	2 3	-55±3 25±2			
	Capacitar	nce	-55 to 25°C: 0+30		4	200±5			
19			CCG 25 to 125°C: 0±30	Oppm/°C	5	25±2			
	Characte	ristics	UNJ 25 to 125°C: -750	0+120/-347ppm/°C	The temperature coefficient is determind using the capacitance measured in step 3 as a reference. When cycling the temperature sequentially from step 1 through 5 (-55 to +200°C) the capacitance should be within the specified tolerance for the temperature coefficient. The capacitance drift is caluculated by dividing the differences				
					betweeen the maximum and m step 1, 3 and 5 by the capacita	ninimum measured values in the ance value in step 3.			

High Dielectric Constant Type Specifications and Test Methods

No.	AEC-Q200	Test Item	Specifications	AEC-Q200 Test Method				
1	Pre-and P	ost-Stress Test		-				
	Hink	Appearance	No defects or abnormalities except color change of outer coating	Sit the capacitor for 1000±12h at 200±5°C. Let sit for 24±2h				
2	High Temperature Exposure	Capacitance Change	Within ±12.5%	at room condition*, then measure. •Pretreatment				
	(Storage)	D.F.	0.04 max.	Perform the heat treatment at 150+0/-10°C for 1h and then let sit for 24±2h at room condition*.				
		I.R.	1000M Ω or 50M Ω • μF min. (Whichever is smaller)	tet sit for 242211 de l'oon condition .				
		Appearance	No defects or abnormalities except color change of outer coating	Perform the 1000 cycles according to the four heat treatments listed in the following table. Let sit for 24±2h at room condition*,				
	Temperature	Capacitance Change	Within ±12.5%	then measure. Step 1 2 3 4				
3	Cycling	D.F.	0.05 max.	Temp. (°C) -55+0/-3 Room Temp. 200+5/-0 Room Temp. Time (min) 15±3 1 15±3 1				
		I.R.	1000MΩ or 50MΩ • μF min. (Whichever is smaller)	•Pretreatment Perform the heat treatment at 150+0/-10°C for 1h and then let sit for 24±2h at room condition*.				
		Appearance	No defects or abnormalities	Apply the 24h heat (25 to 65°C) and humidity (80 to 98%)				
		Capacitance Change	Within ±12.5%	treatment shown below, 10 consecutive times. Let sit for 24±2h at room condition*, then measure.				
		D.F.	0.05 max.	Humidity Humidity Humidity Humidity Humidity (°C) 90-98% 90-98% 90-98% 90-98% 90-98% 90-98%				
4	Moisture Resistance	I.R.	500MΩ or 25MΩ • μF min. (Whichever is smaller)	0 1 2 3 4 5 6 7 8 9 101112131415161718192021222324 Pretreatment -Pretreatment				
				Perform the heat treatment at 150+0/-10°C for 1h and ther let sit for 24±2h at room condition*.				
		Appearance	No defects or abnormalities	Apply the rated voltage and DC1.3+0.2/-0 V (add 100kΩ resistor) at 85±3°C and 80 to 85% humidity for 1000±12h.				
5	Biased Humidity	Capacitance Change	Within ±12.5%	Remove and let sit for 24±2h at room condition*, then measure. The charge/discharge current is less than 50mA.				
	,	D.F.	0.05 max.	•Pretreatment Perform the heat treatment at 150+0/-10°C for 1h and then				
		I.R.	500M Ω or 25M Ω • μF min. (Whichever is smaller)	let sit for 24±2h at room condition*.				
		Appearance	No defects or abnormalities except color change of outer coating	Apply 25% of the rated voltage for 1000±12h at 200±5°C. Let sit for 24±2h at room condition*, then measure.				
6	Operational Life	Capacitance Change	Within ±15%	The charge/discharge current is less than 50mA. •Pretreatment				
		D.F.	0.04 max.	Apply test voltage for 60±5min at test temperature. Remove and let sit for 24±2h at room condition*.				
		I.R.	100MΩ or 5MΩ • μF min. (Whichever is smaller)					
7	External \	/isual	No defects or abnormalities	Visual inspection				
8	Physical Dimension		Within the specified dimensions	Using calipers and micrometers				
9	Marking		To be easily legible	Visual inspection				
		Appearance	No defects or abnormalities	Per MIL-STD-202 Method 215				
		Capacitance	Within the specified tolerance	Solvent 1: 1 part (by volume) of isopropyl alcohol 3 parts (by volume) of mineral spirits				
10	Resistance to Solvents	D.F.	0.025 max. $10000 M\Omega \text{ or } 500 M\Omega \bullet \mu \text{F min. (Whichever is smaller)}$	Solvent 2: Terpene defluxer Solvent 3: 42 parts (by volume) of water 1part (by volume) of propylene glycol monomethyl ether 1 part (by volume) of monoethanolamine				

 $^{^{\}star}$ "room condition" Temperature: 15 to 35 °C, Relative humidity: 45 to 75%, Atmosphere pressure: 86 to 106kPa

Continued on the following page. 🖊

High Dielectric Constant Type Specifications and Test Methods

Continued from the preceding page.

			aing page. 🔏					
No.	AEC-Q200	Test Item	Specifications	AEC-Q200 Test Method				
	Mechanical	Appearance	No defects or abnormalities	Three shocks in each direction should be applied along 3 mutually perpendicular axes of the test specimen (18 shocks).				
11	Shock	Capacitance	Within the specified tolerance	The specified test pulse should be Half-sine and should have a				
		D.F.	0.025 max.	duration: 0.5ms, peak value: 1500G and velocity change: 4.7m/s.				
		Appearance	No defects or abnormalities	The capacitor should be subjected to a simple harmonic motion				
		Capacitance	Within the specified tolerance	having a total amplitude of 1.5mm, the frequency being varied uniformly between the approximate limits of 10 and 2000Hz.				
12	Vibration	D.F.	0.025 max.	The frequency range, from 10 to 2000Hz and return to 10Hz, should be traversed in approximately 20min. This motion should be applied for 12 items in each 3 mutually perpendicular directions (total of 36 times).				
		Appearance	No defects or abnormalities	The lead wires should be immersed in the melted solder 1.5 to				
13	Resistance to	Capacitance Change	Within ±7.5%	2.0mm from the root of terminal at 260±5°C for 10±1s. •Pretreatment				
1	Soldering Heat (Non-Preheat)	Dielectric Strength (Between Terminals)	No defects	Perform the heat treatment at 150+0/-10°C for 1h and then let sit for 24±2h at room condition*. •Post-treatment Capacitor should be stored for 24±2h at room condition*.				
		Appearance	No defects or abnormalities	First the capacitor should be stored at 120+0/-5°C for 60+0/-5s.				
13	Resistance to	Capacitance Change	Within ±7.5%	Then, the lead wires should be immersed in the melted solder 1.5 to 2.0mm from the root of terminal at 260±5°C for 7.5+0/-1s.				
2	Soldering Heat (On-Preheat)	Dielectric Strength (Between Terminals)	No defects	 Pretreatment Perform the heat treatment at 150+0/-10°C for 1h and then let sit for 24±2h at room condition*. Post-treatment Capacitor should be stored for 24±2h at room condition*. 				
		Appearance	No defects or abnormalities	Test condition				
		Capacitance Change	Within ±7.5%	Termperature of iron-tip: 350±10°C Soldering time: 3.5±0.5s Soldering position				
13	Resistance to Soldering Heat (Soldering Iron Method)	Dielectric Strength (Between Terminals)	No defects	Straight Lead: 1.5 to 2.0mm from the root of terminal. Crimp Lead: 1.5 to 2.0mm from the end of lead bend. •Pretreatment Perform the heat treatment at 150+0/-10°C for 1h and then let sit for 24±2h at room condition*. •Post-treatment Capacitor should be stored for 24±2h at room condition*.				
		Appearance	No defects or abnormalities	Perform the 300 cycles according to the two heat treatments				
		Capacitance Change	Within ±12.5%	listed in the following table (Maximum transfer time is 20s). Let sit for 24±2h at room condition*, then measure.				
14	Thermal	D.F.	0.05 max.	Step 1 2 Temp. (°C) -55+0/-3 200+5/-0				
- 1	Shock	I.R.	1000MΩ or 50MΩ • μF min. (Whichever is smaller)	Temp. (°C) -55+0/-3 200+5/-0				
		Appearance	No defects or abnormalities					
	FCD	Capacitance	Within the specified tolerance	1				
15	ESD	D.F.	0.025 max.	Per AEC-Q200-002				
		I.R.	10000MΩ or 500MΩ • μF min. (Whichever is smaller)					
16			Lead wire should be soldered with uniform coating on the axial direction over 95% of the circumferential direction.	The terminal of a capacitor is dipped into a solution of ethanol (JIS-K-8101) and rosin (JIS-K-5902) (25% rosin in weight propotion) and then into molten solder (JIS-Z-3282) for 2 ± 0.5 s. In both cases the depth of dipping is up to about 1.5 to 2mm from the terminal body.				
* "		:» T	perature: 15 to 35°C Relative humidity: 45 to 75%. Atmosphere n	Temp. of solder: 245±5°C Lead Free Solder (Sn-3.0Ag-0.5Cu)				

 $^{{\}rm *`"room\ condition"}\ \ {\rm Temperature:15\ to\ 35°C,Relative\ humidity:45\ to\ 75\%,Atmosphere\ pressure:86\ to\ 106kPa}$

Continued on the following page. ${\cal J}$

High Dielectric Constant Type Specifications and Test Methods

No.	AEC-Q200	Test Item		Specifications	AEC-Q200	O Test Method			
		Appearance	No defects or abnorm	nalities	Visual inspection				
		Capacitance	Within the specified t	olerance	The capacitance, D.F. should b				
		D.F.	0.025 max.		C ≤ 1000pF 1±0 10µF ≥ C > 1000pF 1±0	n the table. quency Voltage 0.1MHz AC0.5 to 5V (r.m.s.) 0.1kHz AC1±0.2V (r.m.s.) 0±24Hz AC0.5±0.1V (r.m.s.)			
		I D	Room Temperature	10000MΩ or 500MΩ • μ F min. (Whichever is smaller)	The insulation resistance should be measured at 25±3°C DC voltage not exceeding the rated voltage at normal temperature and humidity and within 2min of charging. (Charge/Discharge current ≤ 50mA)				
17	Electrical Charac- terization	I.R.	High Temperature	0.5MΩ or 0.1MΩ • μ F min. (Whichever is smaller)	a DC voltage not exceeding 25 temperature and humidity and	The insulation resistance should be measured at 200±5°C with a DC voltage not exceeding 25% of the rated voltage at normal temperature and humidity and within 2min of charging. (Charge/Discharge current ≤ 50mA)			
			Between Terminals	No defects or abnormalities	The capacitor should not be da 250% of the rated voltage is a for 1 to 5s. (Charge/Discharge current ≤ 5	applied between the terminations			
		Dielectric Strength	Body Insulation	No defects or abnormalities	The capacitor is placed in a cometal balls of 1mm diameters terminal, short-circuit, is kept 2mm from the balls as shown and 250% of the rated DC volimpressed for 1 to 5s between terminals and metal balls. (Charge/Discharge current ≤ 5	so that each approximately in the figure, tage is Approx. 2mm			
18	Terminal Strength	Tensile Strength	Termination not to be	e broken or loosened	As in the figure, fix the capacitor body, apply the force gradually to each lead in the radial direction of the capacitor until reaching 10N and then keep the force applied for 10±1s.				
		Bending Strength			be bent 90° at the point of egr then returned to the original p	Each lead wire should be subjected to a force of 2.5N and then be bent 90° at the point of egress in one direction. Each wire is then returned to the original position and bent 90° in the opposite direction at the rate of one bend per 2 to 3s.			
					The capacitance change shoul each specified temperature st				
					1	25±2			
					2	-55±3 25±2			
	Capacitar		Within the specified T		4	200±5			
19	Temperat Character		-55 to 125°C: Within 125 to 200°C: Within		5 25±2 The ranges of capacitance change compared with the above 25°C value over the temperature ranges shown in the table should be within the specified ranges. •Pretreatment Perform the heat treatment at 150+0/-10°C for 1h and then let sit for 24±2h at room condition*. Perform the initial measurement.				

 $^{^{\}star}\,\text{``room condition''}\quad \text{Temperature: 15 to 35°C, Relative humidity: 45 to 75\%, Atmosphere pressure: 86 to 106 kPa}$

Leaded MLCC for General Purpose

■ RDE Series (DC25V-DC1kV)

Features

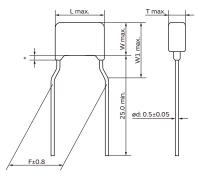
- 1. Small size and large capacitance
- 2. Low ESR characteristics for high frequency
- 3. Meet LF (Lead Free) and HF (Halogen Free)
- 4. Flow soldering is available, but re-flow soldering is not available.

Applications

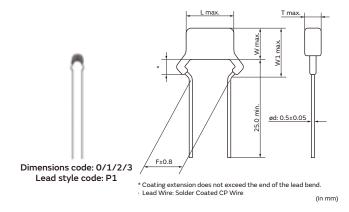
General electronic equipment

(Do not use for automotive-related power train and safety equipment.)

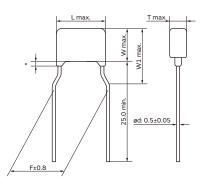




- Coating extension does not exceed the end of the lead bend. Lead Wire: Solder Coated CP Wire



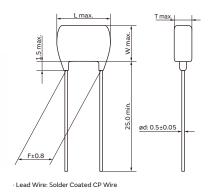




Coating extension does not exceed the end of the lead bend Lead Wire: Solder Coated CP Wire

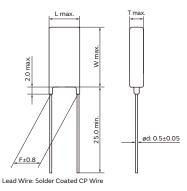
Dimensions code: 5

Lead style code: B1



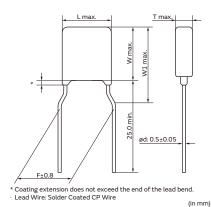
(in mm)





(in mm)

Dimensions code: W Lead style code: K1



Dimensions

Dimensions and				Dimensions (mm)		
Lead Style Code	L	W	W1	Т	F	d
0P1/0S1	5.0	3.5	6.0		2.5	0.5
0K1/0M1	4.0	3.5	6.0		5.0	0.5
1P1/1S1	5.0	3.5	5.0		2.5	0.5
1K1/1M1	4.5	3.5	5.0		5.0	0.5
2P1/2S1	5.5	4.0	6.0		2.5	0.5
2K1/2M1	5.5	4.0	6.0	See the individual	5.0	0.5
3P1/3S1	5.5	5.0	7.5	product specification	2.5	0.5
3K1/3M1	5.5	5.0	7.5		5.0	0.5
4K1/4M1	7.5	5.5	8.0		5.0	0.5
5B1/5E1	7.5	7.5*	-		5.0	0.5
UB1/UE1	7.7	12.5*	-		5.0	0.5
WK1/WM1	5.5	7.5	10.0		5.0	0.5

*DC630V, DC1kV: W+0.5mm

Marking

Marking	Tarking											
Rated Voltage	DC2	5V	С	C50V			DC100V		DC250V	DC500V	DC630V	DC1kV
Dimensions Temp. Code Char.	X7S	X7R	COG	X7S	X7R	COG	X7S	X7R		X7R, U	2J, C0G	
0		104K		-			-		-		-	-
1	(224K)	-	A 102J	-	224K	A 102J	-	(224K)	U 102J (U2J) (U2J)	(X7R)	-	-
2	(H475)	-	(€ 563 (J5A	(M _{K5C})	(MK5C)	(M) 103 JIA	-	(Marc)	(U2J) (U2J) (W473) (X7R) (X7R) (C0G)	(X7R)	(U2J) (U2J) (U2J) (W153 (X7R) (X7R) (X7R) (C0G)	(U2J) (U2J) (U2J) (U2J) (X7R) (X7R) (X7R) (C0G)
3, 4, W	(H226 K2C	-	-	(M226 K5C)	(M335 K5C	-	(H225 K1C)	-	(W473 J4U (U2J) (W224 K4C (X7R)	(X7R)	(V2J) (U2J) (W104 K7C (X7R)	(M472 JAU (U2J) (M333 KAC (X7R)
5, U	-	-	-	-	-	-	-	-	- (M 474 K4C (X7R)	(X7R)	(U2J) (U2J) (W474 M7C (X7R)	(U2J) (U2J) (X7R)
Temperature Characteristics	II.	vith code (omitted (P					U)					
Nominal Capacitance	Under 10	00pF: Actua	al value 1	.00pF and	over: Mark	ed with 3 f	igures					
Capacitance Tolerance	Marked v	vith code omitted (P					-					
Rated Voltage		vith code (omitted (P					: 4, DC500	V: 9, DC63	0V: 7, DC:	lkV: A)		
Manufacturer's Identification	Marked v A part is	vith M omitted (P	lease refer	to the ma	rking exam	nple.)						

■ Temperature Compensating Type, COG/U2J Characteristics

Part Number	Temp. Char.	Rated Voltage	Capacitance	Dimensions LxW (mm)	Dimension T (mm)	Lead Space F (mm)	Lead Style Code Bulk	Lead Style Code Taping
RDE5C1H1R0C0 H03	COG (EIA)	50Vdc	1.0pF±0.25pF	4.0×3.5	2.5	5.0	K1	M1
RDE5C1H1R0C0 H03	COG (EIA)	50Vdc	1.0pF±0.25pF	5.0×3.5	2.5	2.5	P1	S1
RDE5C1H2R0C0 H03	COG (EIA)	50Vdc	2.0pF±0.25pF	4.0×3.5	2.5	5.0	K1	M1
RDE5C1H2R0C0 H03	COG (EIA)	50Vdc	2.0pF±0.25pF	5.0×3.5	2.5	2.5	P1	S1
RDE5C1H3R0C0 H03	COG (EIA)	50Vdc	3.0pF±0.25pF	4.0×3.5	2.5	5.0	K1	M1
RDE5C1H3R0C0 H03	COG (EIA)	50Vdc	3.0pF±0.25pF	5.0×3.5	2.5	2.5	P1	S1
RDE5C1H4R0C0 H03	COG (EIA)	50Vdc	4.0pF±0.25pF	4.0×3.5	2.5	5.0	K1	M1
RDE5C1H4R0C0 H03	COG (EIA)	50Vdc	4.0pF±0.25pF	5.0×3.5	2.5	2.5	P1	S1
RDE5C1H5R0C0 H03	COG (EIA)	50Vdc	5.0pF±0.25pF	4.0×3.5	2.5	5.0	K1	M1
RDE5C1H5R0C0□□H03□	COG (EIA)	50Vdc	5.0pF±0.25pF	5.0×3.5	2.5	2.5	P1	S1

Continued from the preceding pa	age. 🔰							
Part Number	Temp. Char.	Rated Voltage	Capacitance	Dimensions LxW (mm)	Dimension T (mm)	Lead Space F (mm)	Lead Style Code Bulk	Lead Style Code Taping
RDE5C1H6R0D0 H03	COG (EIA)	50Vdc	6.0pF±0.5pF	4.0×3.5	2.5	5.0	K1	M1
RDE5C1H6R0D0□□H03□	COG (EIA)	50Vdc	6.0pF±0.5pF	5.0×3.5	2.5	2.5	P1	S1
RDE5C1H7R0D0□□H03□	COG (EIA)	50Vdc	7.0pF±0.5pF	4.0×3.5	2.5	5.0	K1	M1
RDE5C1H7R0D0 H03	COG (EIA)	50Vdc	7.0pF±0.5pF	5.0×3.5	2.5	2.5	P1	S1
RDE5C1H8R0D0 H03	COG (EIA)	50Vdc	8.0pF±0.5pF	4.0×3.5	2.5	5.0	K1	M1
RDE5C1H8R0D0 H03	COG (EIA)	50Vdc	8.0pF±0.5pF	5.0×3.5	2.5	2.5	P1	S1
RDE5C1H9R0D0 H03	COG (EIA)	50Vdc	9.0pF±0.5pF	4.0×3.5	2.5	5.0	K1	M1
RDE5C1H9R0D0 H03	COG (EIA)	50Vdc	9.0pF±0.5pF	5.0×3.5	2.5	2.5	P1	S1
RDE5C1H100J0 H03	COG (EIA)	50Vdc	10pF±5%	4.0×3.5	2.5	5.0	K1	M1
RDE5C1H100J0 H03	COG (EIA)	50Vdc	10pF±5%	5.0×3.5	2.5	2.5	P1	S1
RDE5C1H120J0 H03	COG (EIA)	50Vdc	12pF±5%	4.0×3.5	2.5	5.0	K1	M1
RDE5C1H12OJ0	COG (EIA)	50Vdc	12pF±5%	5.0×3.5	2.5	2.5	P1	S1
	COG (EIA)	50Vdc			2.5	5.0		M1
RDE5C1H150J0 H03	_ ` /		15pF±5%	4.0×3.5	2.5	2.5	K1 P1	S1
RDE5C1H150J0 H03	COG (EIA)	50Vdc	15pF±5%	5.0×3.5				
RDE5C1H180J0 H03	COG (EIA)	50Vdc	18pF±5%	4.0×3.5	2.5	5.0	K1	M1
RDE5C1H180J0 H03	COG (EIA)	50Vdc	18pF±5%	5.0×3.5	2.5	2.5	P1	S1
RDE5C1H220J0 H03	COG (EIA)	50Vdc	22pF±5%	4.0×3.5	2.5	5.0	K1	M1
RDE5C1H22OJ0 H03	COG (EIA)	50Vdc	22pF±5%	5.0×3.5	2.5	2.5	P1	S1
RDE5C1H270J0 H03	COG (EIA)	50Vdc	27pF±5%	4.0×3.5	2.5	5.0	K1	M1
RDE5C1H270J0 H03	COG (EIA)	50Vdc	27pF±5%	5.0×3.5	2.5	2.5	P1	S1
RDE5C1H330J0 H03	COG (EIA)	50Vdc	33pF±5%	4.0×3.5	2.5	5.0	K1	M1
RDE5C1H330J0 H03	COG (EIA)	50Vdc	33pF±5%	5.0×3.5	2.5	2.5	P1	S1
RDE5C1H390J0 H03	COG (EIA)	50Vdc	39pF±5%	4.0×3.5	2.5	5.0	K1	M1
RDE5C1H390J0 H03	COG (EIA)	50Vdc	39pF±5%	5.0×3.5	2.5	2.5	P1	S1
RDE5C1H470J0 H03	COG (EIA)	50Vdc	47pF±5%	4.0×3.5	2.5	5.0	K1	M1
RDE5C1H470J0 H03	COG (EIA)	50Vdc	47pF±5%	5.0×3.5	2.5	2.5	P1	S1
RDE5C1H560J0 H03	COG (EIA)	50Vdc	56pF±5%	4.0×3.5	2.5	5.0	K1	M1
RDE5C1H560J0 H03	COG (EIA)	50Vdc	56pF±5%	5.0×3.5	2.5	2.5	P1	S1
RDE5C1H680J0 H03	COG (EIA)	50Vdc	68pF±5%	4.0×3.5	2.5	5.0	K1	M1
RDE5C1H680J0 H03	COG (EIA)	50Vdc	68pF±5%	5.0×3.5	2.5	2.5	P1	S1
RDE5C1H820J0 H03	COG (EIA)	50Vdc	82pF±5%	4.0×3.5	2.5	5.0	K1	M1
RDE5C1H820J0 H03	COG (EIA)	50Vdc	82pF±5%	5.0×3.5	2.5	2.5	P1	S1
RDE5C1H101J0 H03	COG (EIA)	50Vdc	100pF±5%	4.0×3.5	2.5	5.0	K1	M1
RDE5C1H101J0 H03	COG (EIA)	50Vdc	100pF±5%	5.0×3.5	2.5	2.5	P1	S1
RDE5C1H121J0 H03	COG (EIA)	50Vdc	120pF±5%	4.0×3.5	2.5	5.0	K1	M1
RDE5C1H121J0 H03	COG (EIA)	50Vdc	120pF±5%	5.0×3.5	2.5	2.5	P1	S1
RDE5C1H151J0 H03	COG (EIA)	50Vdc	150pF±5%	4.0×3.5	2.5	5.0	K1	M1
RDE5C1H151J0 H03	COG (EIA)	50Vdc	150pF±5%	5.0×3.5	2.5	2.5	P1	S1
RDE5C1H181J0□□H03□	COG (EIA)	50Vdc	180pF±5%	4.0×3.5	2.5	5.0	K1	M1
RDE5C1H181J0□□H03□	COG (EIA)	50Vdc	180pF±5%	5.0×3.5	2.5	2.5	P1	S1
RDE5C1H221J0□□H03□	COG (EIA)	50Vdc	220pF±5%	4.0×3.5	2.5	5.0	K1	M1
RDE5C1H221J0 H03	COG (EIA)	50Vdc	220pF±5%	5.0×3.5	2.5	2.5	P1	S1
RDE5C1H271J0□□H03□	COG (EIA)	50Vdc	270pF±5%	4.0×3.5	2.5	5.0	K1	M1
RDE5C1H271J0 H03	COG (EIA)	50Vdc	270pF±5%	5.0×3.5	2.5	2.5	P1	S1
RDE5C1H331J0 H03	COG (EIA)	50Vdc	330pF±5%	4.0×3.5	2.5	5.0	K1	M1
RDE5C1H331J0 H03	COG (EIA)	50Vdc	330pF±5%	5.0×3.5	2.5	2.5	P1	S1
RDE5C1H391J0 H03	COG (EIA)	50Vdc	390pF±5%	4.0×3.5	2.5	5.0	K1	M1
RDE5C1H391J0 H03	COG (EIA)	50Vdc	390pF±5%	5.0×3.5	2.5	2.5	P1	S1
RDE5C1H471J0 H03	COG (EIA)	50Vdc	470pF±5%	4.0×3.5	2.5	5.0	K1	M1
RDE5C1H471J0 H03	COG (EIA)	50Vdc	470pF±5%	5.0×3.5	2.5	2.5	P1	S1
RDE5C1H561J0□□H03□	COG (EIA)	50Vdc	560pF±5%	4.0×3.5	2.5	5.0	K1	M1
RDE5C1H561J0□□H03□	COG (EIA)	50Vdc	560pF±5%	5.0×3.5	2.5	2.5	P1	S1
RDE5C1H681J0□□H03□	COG (EIA)	50Vdc	680pF±5%	4.0×3.5	2.5	5.0	K1	M1
RDE5C1H681J0 H03	COG (EIA)	50Vdc	680pF±5%	5.0×3.5	2.5	2.5	P1	S1
RDE5C1H821J0 H03	COG (EIA)	50Vdc	820pF±5%	4.0×3.5	2.5	5.0	K1	M1
RDE5C1H821J0 H03	COG (EIA)	50Vdc	820pF±5%	5.0×3.5	2.5	2.5	P1	S1
RDE5C1H102J0 H03	COG (EIA)	50Vdc	1000pF±5%	4.0×3.5	2.5	5.0	K1	M1
							–	

Continued from the preceding pa	Continued from the preceding page. 🕽									
Part Number	Temp. Char.	Rated Voltage	Capacitance	Dimensions LxW (mm)	Dimension T (mm)	Lead Space F (mm)	Lead Style Code Bulk	Lead Style Code Taping		
RDE5C1H102J0 H03	COG (EIA)	50Vdc	1000pF±5%	5.0×3.5	2.5	2.5	P1	S1		
RDE5C1H122J0 H03	COG (EIA)	50Vdc	1200pF±5%	4.0×3.5	2.5	5.0	K1	M1		
RDE5C1H122J0 H03	COG (EIA)	50Vdc	1200pF±5%	5.0×3.5	2.5	2.5	P1	S1		
RDE5C1H152J0□□H03□	COG (EIA)	50Vdc	1500pF±5%	4.0×3.5	2.5	5.0	K1	M1		
RDE5C1H152J0□□H03□	COG (EIA)	50Vdc	1500pF±5%	5.0×3.5	2.5	2.5	P1	S1		
RDE5C1H182J0 H03	COG (EIA)	50Vdc	1800pF±5%	4.0×3.5	2.5	5.0	K1	M1		
RDE5C1H182J0 H03	COG (EIA)	50Vdc	1800pF±5%	5.0×3.5	2.5	2.5	P1	S1		
RDE5C1H222J0□□H03□	COG (EIA)	50Vdc	2200pF±5%	4.0×3.5	2.5	5.0	K1	M1		
RDE5C1H222J0□□H03□	COG (EIA)	50Vdc	2200pF±5%	5.0×3.5	2.5	2.5	P1	S1		
RDE5C1H272J0□□H03□	COG (EIA)	50Vdc	2700pF±5%	4.0×3.5	2.5	5.0	K1	M1		
RDE5C1H272J0□□H03□	COG (EIA)	50Vdc	2700pF±5%	5.0×3.5	2.5	2.5	P1	S1		
RDE5C1H332J0□□H03□	COG (EIA)	50Vdc	3300pF±5%	4.0×3.5	2.5	5.0	K1	M1		
RDE5C1H332J0 H03	COG (EIA)	50Vdc	3300pF±5%	5.0×3.5	2.5	2.5	P1	S1		
RDE5C1H392J0□□H03□	COG (EIA)	50Vdc	3900pF±5%	4.0×3.5	2.5	5.0	K1	M1		
RDE5C1H392J0□□H03□	COG (EIA)	50Vdc	3900pF±5%	5.0×3.5	2.5	2.5	P1	S1		
RDE5C1H472J1 H03	COG (EIA)	50Vdc	4700pF±5%	4.5×3.5	3.15	5.0	K1	M1		
RDE5C1H472J1 H03	COG (EIA)	50Vdc	4700pF±5%	5.0×3.5	3.15	2.5	P1	S1		
RDE5C1H562J1 H03	COG (EIA)	50Vdc	5600pF±5%	4.5×3.5	3.15	5.0	K1	M1		
RDE5C1H562J1 H03	COG (EIA)	50Vdc	5600pF±5%	5.0×3.5	3.15	2.5	P1	S1		
RDE5C1H682J1 H03	COG (EIA)	50Vdc	6800pF±5%	4.5×3.5	3.15	5.0	K1	M1		
RDE5C1H682J1 H03	COG (EIA)	50Vdc	6800pF±5%	5.0×3.5	3.15	2.5	P1	S1		
RDE5C1H822J1□□H03□	COG (EIA)	50Vdc	8200pF±5%	4.5×3.5	3.15	5.0	K1	M1		
RDE5C1H822J1□□H03□	COG (EIA)	50Vdc	8200pF±5%	5.0×3.5	3.15	2.5	P1	S1		
RDE5C1H103J1 H03	COG (EIA)	50Vdc	10000pF±5%	4.5×3.5	3.15	5.0	K1	M1		
RDE5C1H103J1 H03	COG (EIA)	50Vdc	10000pF±5%	5.0×3.5	3.15	2.5	P1	S1		
RDE5C1H123J1 H03	COG (EIA)	50Vdc	12000pF±5%	4.5×3.5	3.15	5.0	K1	M1		
RDE5C1H123J1 H03	COG (EIA)	50Vdc	12000pF±5%	5.0×3.5	3.15	2.5	P1	S1		
RDE5C1H153J1 H03	COG (EIA)	50Vdc	15000pF±5%	4.5×3.5	3.15	5.0	K1	M1		
RDE5C1H153J1 H03	COG (EIA)	50Vdc	15000pF±5%	5.0×3.5	3.15	2.5	P1	S1		
RDE5C1H183J1 H03	COG (EIA)	50Vdc	18000pF±5%	4.5×3.5	3.15	5.0	K1	M1		
RDE5C1H183J1 H03	COG (EIA)	50Vdc	18000pF±5%	5.0×3.5	3.15	2.5	P1	S1		
RDE5C1H223J1 H03	COG (EIA)	50Vdc	22000pF±5%	4.5×3.5	3.15	5.0	K1	M1		
RDE5C1H223J1 H03	COG (EIA)	50Vdc	22000pF±5%	5.0×3.5	3.15	2.5	P1	S1		
RDE5C1H273J2□□H03□	COG (EIA)	50Vdc	27000pF±5%	5.5×4.0	3.15	5.0	K1	M1		
RDE5C1H273J2□□H03□	COG (EIA)	50Vdc	27000pF±5%	5.5×4.0	3.15	2.5	P1	S1		
RDE5C1H333J2□□H03□	COG (EIA)	50Vdc	33000pF±5%	5.5×4.0	3.15	5.0	K1	M1		
RDE5C1H333J2	COG (EIA)	50Vdc	33000pF±5%	5.5×4.0	3.15	2.5	P1	S1		
RDE5C1H393J2	COG (EIA)	50Vdc	39000pF±5%	5.5×4.0	3.15	5.0	K1	M1		
RDE5C1H393J2	COG (EIA)	50Vdc	39000pF±5%	5.5×4.0	3.15	2.5	P1	S1		
RDE5C1H473J2 H03	COG (EIA)	50Vdc	47000pF±5%	5.5×4.0	3.15	5.0	K1	M1		
RDE5C1H473J2□□H03□	COG (EIA)	50Vdc	47000pF±5%	5.5×4.0	3.15	2.5	P1	S1		
RDE5C1H563J2□□H03□	COG (EIA)	50Vdc	56000pF±5%	5.5×4.0	3.15	5.0	K1	M1		
RDE5C1H563J2 H03	COG (EIA)	50Vdc	56000pF±5%	5.5×4.0	3.15	2.5	P1	S1		
RDE5C1H683J2 H03	COG (EIA)	50Vdc	68000pF±5%	5.5×4.0	3.15	5.0	K1	M1		
RDE5C1H683J2 H03	COG (EIA)	50Vdc	68000pF±5%	5.5×4.0	3.15	2.5	P1	S1		
RDE5C1H823J2 H03	COG (EIA)	50Vdc	82000pF±5%	5.5×4.0	3.15	5.0	K1	M1		
RDE5C1H823J2□□H03□	COG (EIA)	50Vdc	82000pF±5%	5.5×4.0	3.15	2.5	P1	S1		
RDE5C1H104J2 H03	COG (EIA)	50Vdc	0.1µF±5%	5.5×4.0	3.15	5.0	K1	M1		
RDE5C1H104J2 H03	COG (EIA)	50Vdc	0.1µF±5%	5.5×4.0	3.15	2.5	P1	S1		
RDE5C2A1R0C0□□H03□	COG (EIA)	100Vdc	1.0pF±0.25pF	4.0×3.5	2.5	5.0	K1	M1		
RDE5C2A1R0C0□□H03□	COG (EIA)	100Vdc	1.0pF±0.25pF	5.0×3.5	2.5	2.5	P1	S1		
RDE5C2A2R0C0□□H03□	COG (EIA)	100Vdc	2.0pF±0.25pF	4.0×3.5	2.5	5.0	K1	M1		
RDE5C2A2R0C0□□H03□	COG (EIA)	100Vdc	2.0pF±0.25pF	5.0×3.5	2.5	2.5	P1	S1		
RDE5C2A3R0C0 H03	COG (EIA)	100Vdc	3.0pF±0.25pF	4.0×3.5	2.5	5.0	K1	M1		
RDE5C2A3R0C0 H03	COG (EIA)	100Vdc	3.0pF±0.25pF	5.0×3.5	2.5	2.5	P1	S1		
RDE5C2A4R0C0 H03	COG (EIA)	100Vdc	4.0pF±0.25pF	4.0×3.5	2.5	5.0	K1	M1		
RDE5C2A4R0C0□□H03□	COG (EIA)	100Vdc	4.0pF±0.25pF	5.0×3.5	2.5	2.5	P1	S1		

Continued from the preceding pa	age. 🔰							
Part Number	Temp. Char.	Rated Voltage	Capacitance	Dimensions LxW (mm)	Dimension T (mm)	Lead Space F (mm)	Lead Style Code Bulk	Lead Style Code Taping
RDE5C2A5R0C0 H03	COG (EIA)	100Vdc	5.0pF±0.25pF	4.0×3.5	2.5	5.0	K1	M1
RDE5C2A5R0C0 H03	COG (EIA)	100Vdc	5.0pF±0.25pF	5.0×3.5	2.5	2.5	P1	S1
RDE5C2A6R0D0 H03	` '	100Vdc	6.0pF±0.5pF	4.0×3.5	2.5	5.0	K1	M1
RDE5C2A6R0D0 H03	COG (EIA)	100Vdc	6.0pF±0.5pF	5.0×3.5	2.5	2.5	P1	S1
RDE5C2A7R0D0 H03	COG (EIA)	100Vdc	7.0pF±0.5pF	4.0×3.5	2.5	5.0	K1	M1
RDE5C2A7R0D0 H03	COG (EIA)	100Vdc	7.0pF±0.5pF	5.0×3.5	2.5	2.5	P1	S1
RDE5C2A8RODO H03	COG (EIA)	100Vdc	8.0pF±0.5pF	4.0×3.5	2.5	5.0	K1	M1
RDE5C2A8RODO H03	COG (EIA)	100Vdc	8.0pF±0.5pF	5.0×3.5	2.5	2.5	P1	S1
RDE5C2A9RODO H03	COG (EIA)	100Vdc	9.0pF±0.5pF	4.0×3.5	2.5	5.0	K1	M1
RDE5C2A9RODO H03	COG (EIA)	100Vdc	9.0pF±0.5pF	5.0×3.5	2.5	2.5	P1	S1
RDE5C2A100J0 H03	COG (EIA)	100Vdc	10pF±5%	4.0×3.5	2.5	5.0	K1	M1
RDE5C2A100J0 H03	COG (EIA)	100Vdc	10pF±5%	5.0×3.5	2.5	2.5	P1	S1
RDE5C2A120J0 H03	COG (EIA)	100Vdc	12pF±5%	4.0×3.5	2.5	5.0	K1	M1
RDE5C2A120J0 H03	COG (EIA)	100Vdc	12pr ±5 % 12pF±5%	5.0×3.5	2.5	2.5	P1	S1
RDE5C2A150J0 H03	COG (EIA)	100Vdc	15pF±5%	4.0×3.5	2.5	5.0	K1	M1
	· ,							
RDE5C2A180 IO BB65C2A180 IO BB	COG (EIA)	100Vdc 100Vdc	15pF±5% 18pF±5%	5.0×3.5 4.0×3.5	2.5	2.5 5.0	P1 K1	S1 M1
RDE5C2A180J0 H03	·							
RDE5C2A180J0 H03	COG (EIA)	100Vdc	18pF±5%	5.0×3.5	2.5	2.5	P1	S1
RDE5C2A220J0 H03	COG (EIA)	100Vdc	22pF±5%	4.0×3.5	2.5	5.0	K1	M1
RDE5C2A220J0 H03	COG (EIA)	100Vdc	22pF±5%	5.0×3.5	2.5	2.5	P1	S1
RDE5C2A270J0 H03	COG (EIA)	100Vdc	27pF±5%	4.0×3.5	2.5	5.0	K1	M1
RDE5C2A270J0 H03	COG (EIA)	100Vdc	27pF±5%	5.0×3.5	2.5	2.5	P1	S1
RDE5C2A330J0 H03	COG (EIA)	100Vdc	33pF±5%	4.0×3.5	2.5	5.0	K1	M1
RDE5C2A330J0 H03	COG (EIA)	100Vdc	33pF±5%	5.0×3.5	2.5	2.5	P1	S1
RDE5C2A390J0 H03	COG (EIA)	100Vdc	39pF±5%	4.0×3.5	2.5	5.0	K1	M1
RDE5C2A390J0 H03	COG (EIA)	100Vdc	39pF±5%	5.0×3.5	2.5	2.5	P1	S1
RDE5C2A470J0 H03	COG (EIA)	100Vdc	47pF±5%	4.0×3.5	2.5	5.0	K1	M1
RDE5C2A470J0 H03	COG (EIA)	100Vdc	47pF±5%	5.0×3.5	2.5	2.5	P1	S1
RDE5C2A560J0 H03	COG (EIA)	100Vdc	56pF±5%	4.0×3.5	2.5	5.0	K1	M1
RDE5C2A560J0 H03	COG (EIA)	100Vdc	56pF±5%	5.0×3.5	2.5	2.5	P1	S1
RDE5C2A680J0 H03	COG (EIA)	100Vdc	68pF±5%	4.0×3.5	2.5	5.0	K1	M1
RDE5C2A680J0 H03	COG (EIA)	100Vdc	68pF±5%	5.0×3.5	2.5	2.5	P1	S1
RDE5C2A820J0 H03	COG (EIA)	100Vdc	82pF±5%	4.0×3.5	2.5	5.0	K1	M1
RDE5C2A820J0 H03	COG (EIA)	100Vdc	82pF±5%	5.0×3.5	2.5	2.5	P1	S1
RDE5C2A101J0 H03	COG (EIA)	100Vdc	100pF±5%	4.0×3.5	2.5	5.0	K1	M1
RDE5C2A101J0 H03	COG (EIA)	100Vdc	100pF±5%	5.0×3.5	2.5	2.5	P1	S1
RDE5C2A121J0 H03	COG (EIA)	100Vdc	120pF±5%	4.0×3.5	2.5	5.0	K1	M1
RDE5C2A121J0 H03	COG (EIA)	100Vdc	120pF±5%	5.0×3.5	2.5	2.5	P1	S1
RDE5C2A151J0 H03	COG (EIA)	100Vdc	150pF±5%	4.0×3.5	2.5	5.0	K1	M1
RDE5C2A151J0 H03	COG (EIA)	100Vdc	150pF±5%	5.0×3.5	2.5	2.5	P1	S1
RDE5C2A181J0 H03	COG (EIA)	100Vdc	180pF±5%	4.0×3.5	2.5	5.0	K1	M1
RDE5C2A181J0 H03	COG (EIA)	100Vdc	180pF±5%	5.0×3.5	2.5	2.5	P1	S1
RDE5C2A221J0 H03	COG (EIA)	100Vdc	220pF±5%	4.0×3.5	2.5	5.0	K1	M1
RDE5C2A221J0 H03	COG (EIA)	100Vdc	220pF±5%	5.0×3.5	2.5	2.5	P1	S1
RDE5C2A271J0 H03	COG (EIA)	100Vdc	270pF±5%	4.0×3.5	2.5	5.0	K1	M1
RDE5C2A271J0 H03	COG (EIA)	100Vdc	270pF±5%	5.0×3.5	2.5	2.5	P1	S1
RDE5C2A331J0 H03	COG (EIA)	100Vdc	330pF±5%	4.0×3.5	2.5	5.0	K1	M1
RDE5C2A331J0 H03	COG (EIA)	100Vdc	330pF±5%	5.0×3.5	2.5	2.5	P1	S1
RDE5C2A391J0 H03	COG (EIA)	100Vdc	390pF±5%	4.0×3.5	2.5	5.0	K1	M1
RDE5C2A391J0 H03	COG (EIA)	100Vdc	390pF±5%	5.0×3.5	2.5	2.5	P1	S1
RDE5C2A471J0 H03	COG (EIA)	100Vdc	470pF±5%	4.0×3.5	2.5	5.0	K1	M1
RDE5C2A471J0 H03	COG (EIA)	100Vdc	470pF±5%	5.0×3.5	2.5	2.5	P1	S1
RDE5C2A561J0□□H03□	COG (EIA)	100Vdc	560pF±5%	4.0×3.5	2.5	5.0	K1	M1
RDE5C2A561J0□□H03□	COG (EIA)	100Vdc	560pF±5%	5.0×3.5	2.5	2.5	P1	S1
RDE5C2A681J0□□H03□	COG (EIA)	100Vdc	680pF±5%	4.0×3.5	2.5	5.0	K1	M1
RDE5C2A681J0 H03	COG (EIA)	100Vdc	680pF±5%	5.0×3.5	2.5	2.5	P1	S1
RDE5C2A821J0□□H03□	COG (EIA)	100Vdc	820pF±5%	4.0×3.5	2.5	5.0	K1	M1

Continued from the preceding pa	age. 🔰							
Part Number	Temp. Char.	Rated Voltage	Capacitance	Dimensions LxW (mm)	Dimension T (mm)	Lead Space F (mm)	Lead Style Code Bulk	Lead Style Code Taping
RDE5C2A821J0 H03	COG (EIA)	100Vdc	820pF±5%	5.0×3.5	2.5	2.5	P1	S1
RDE5C2A102J0 H03	COG (EIA)	100Vdc	1000pF±5%	4.0×3.5	2.5	5.0	K1	M1
RDE5C2A102J0 H03	COG (EIA)	100Vdc	1000pF±5%	5.0×3.5	2.5	2.5	P1	S1
RDE5C2A122J0□□H03□	COG (EIA)	100Vdc	1200pF±5%	4.0×3.5	2.5	5.0	K1	M1
RDE5C2A122J0□□H03□	COG (EIA)	100Vdc	1200pF±5%	5.0×3.5	2.5	2.5	P1	S1
RDE5C2A152J0□□H03□	COG (EIA)	100Vdc	1500pF±5%	4.0×3.5	2.5	5.0	K1	M1
RDE5C2A152J0 H03	COG (EIA)	100Vdc	1500pF±5%	5.0×3.5	2.5	2.5	P1	S1
RDE5C2A182J1□□H03□	COG (EIA)	100Vdc	1800pF±5%	4.5×3.5	3.15	5.0	K1	M1
RDE5C2A182J1□□H03□	COG (EIA)	100Vdc	1800pF±5%	5.0×3.5	3.15	2.5	P1	S1
RDE5C2A222J1 H03	COG (EIA)	100Vdc	2200pF±5%	4.5×3.5	3.15	5.0	K1	M1
RDE5C2A222J1□□H03□	COG (EIA)	100Vdc	2200pF±5%	5.0×3.5	3.15	2.5	P1	S1
RDE5C2A272J1 H03	COG (EIA)	100Vdc	2700pF±5%	4.5×3.5	3.15	5.0	K1	M1
RDE5C2A272J1□□H03□	COG (EIA)	100Vdc	2700pF±5%	5.0×3.5	3.15	2.5	P1	S1
RDE5C2A332J1 H03	COG (EIA)	100Vdc	3300pF±5%	4.5×3.5	3.15	5.0	K1	M1
RDE5C2A332J1 H03	COG (EIA)	100Vdc	3300pF±5%	5.0×3.5	3.15	2.5	P1	S1
RDE5C2A392J2 H03	COG (EIA)	100Vdc	3900pF±5%	5.5×4.0	3.15	5.0	K1	M1
RDE5C2A392J2 H03	COG (EIA)	100Vdc	3900pF±5%	5.5×4.0	3.15	2.5	P1	S1
RDE5C2A472J2 H03	COG (EIA)	100Vdc	4700pF±5%	5.5×4.0	3.15	5.0	K1	M1
RDE5C2A472J2 H03	COG (EIA)	100Vdc	4700pF±5%	5.5×4.0	3.15	2.5	P1	S1
RDE5C2A562J2 H03	COG (EIA)	100Vdc	5600pF±5%	5.5×4.0	3.15	5.0	K1	M1
RDE5C2A562J2□□H03□	COG (EIA)	100Vdc	5600pF±5%	5.5×4.0	3.15	2.5	P1	S1
RDE5C2A682J2□□H03□	COG (EIA)	100Vdc	6800pF±5%	5.5×4.0	3.15	5.0	K1	M1
RDE5C2A682J2 H03	COG (EIA)	100Vdc	6800pF±5%	5.5×4.0	3.15	2.5	P1	S1
RDE5C2A822J2 H03	COG (EIA)	100Vdc	8200pF±5%	5.5×4.0	3.15	5.0	K1	M1
RDE5C2A822J2 H03	COG (EIA)	100Vdc	8200pF±5%	5.5×4.0	3.15	2.5	P1	S1
RDE5C2A103J2 H03	COG (EIA)	100Vdc	10000pF±5%	5.5×4.0	3.15	5.0	K1	M1
RDE5C2A103J2 H03	COG (EIA)	100Vdc	10000pF±5%	5.5×4.0	3.15	2.5	P1	S1
RDE5C2A123J2 H03	COG (EIA)	100Vdc	12000pF±5%	5.5×4.0	3.15	5.0	K1	M1
RDE5C2A123J2 H03	COG (EIA)	100Vdc	12000pF±5%	5.5×4.0	3.15	2.5	P1	S1
RDE5C2A153J2 H03	COG (EIA)	100Vdc	15000pF±5%	5.5×4.0	3.15	5.0	K1	M1
RDE5C2A153J2 H03	COG (EIA)	100Vdc	15000pF±5%	5.5×4.0	3.15	2.5	P1	S1
RDE5C2A183J2 H03	COG (EIA)	100Vdc	18000pF±5%	5.5×4.0	3.15	5.0	K1	M1
RDE5C2A183J2□□H03□	COG (EIA)	100Vdc	18000pF±5%	5.5×4.0	3.15	2.5	P1	S1
RDE5C2A223J2 H03	COG (EIA)	100Vdc	22000pF±5%	5.5×4.0	3.15	5.0	K1	M1
RDE5C2A223J2 H03	COG (EIA)	100Vdc	22000pF±5%	5.5×4.0	3.15	2.5	P1	S1
RDE5C2E100J2 H03	COG (EIA)	250Vdc	10pF±5%	5.5×4.0	3.15	5.0	K1	M1
RDE5C2E120J2□□H03□	COG (EIA)	250Vdc	12pF±5%	5.5×4.0	3.15	5.0	K1	M1
RDE5C2E150J2 H03	COG (EIA)	250Vdc	15pF±5%	5.5×4.0	3.15	5.0	K1	M1
RDE5C2E180J2□□H03□	COG (EIA)	250Vdc	18pF±5%	5.5×4.0	3.15	5.0	K1	M1
RDE5C2E220J2□□H03□	COG (EIA)	250Vdc	22pF±5%	5.5×4.0	3.15	5.0	K1	M1
RDE5C2E270J2□□H03□	COG (EIA)	250Vdc	27pF±5%	5.5×4.0	3.15	5.0	K1	M1
RDE5C2E330J2□□H03□	COG (EIA)	250Vdc	33pF±5%	5.5×4.0	3.15	5.0	K1	M1
RDE5C2E390J2□□H03□	COG (EIA)	250Vdc	39pF±5%	5.5×4.0	3.15	5.0	K1	M1
RDE5C2E470J2□□H03□	COG (EIA)	250Vdc	47pF±5%	5.5×4.0	3.15	5.0	K1	M1
RDE5C2E560J2□□H03□	COG (EIA)	250Vdc	56pF±5%	5.5×4.0	3.15	5.0	K1	M1
RDE5C2E680J2□□H03□	COG (EIA)	250Vdc	68pF±5%	5.5×4.0	3.15	5.0	K1	M1
RDE5C2E820J2□□H03□	COG (EIA)	250Vdc	82pF±5%	5.5×4.0	3.15	5.0	K1	M1
RDE5C2E101J2 H03	COG (EIA)	250Vdc	100pF±5%	5.5×4.0	3.15	5.0	K1	M1
RDE5C2E121J2 H03	COG (EIA)	250Vdc	120pF±5%	5.5×4.0	3.15	5.0	K1	M1
RDE5C2E151J2 H03	COG (EIA)	250Vdc	150pF±5%	5.5×4.0	3.15	5.0	K1	M1
RDE5C2E181J2 H03	COG (EIA)	250Vdc	180pF±5%	5.5×4.0	3.15	5.0	K1	M1
RDE5C2E221J2 H03	COG (EIA)	250Vdc	220pF±5%	5.5×4.0	3.15	5.0	K1	M1
RDE5C2E271J2 H03	COG (EIA)	250Vdc	270pF±5%	5.5×4.0	3.15	5.0	K1	M1
RDE5C2E331J2 H03	COG (EIA)	250Vdc	330pF±5%	5.5×4.0	3.15	5.0	K1	M1
RDE5C2E391J2	COG (EIA)	250Vdc	390pF±5%	5.5×4.0	3.15	5.0	K1	M1
RDE5C2E471J2 H03	COG (EIA)	250Vdc	470pF±5%	5.5×4.0	3.15	5.0	K1	M1
RDE5C2E561J2 H03	COG (EIA)	250Vdc	560pF±5%	5.5×4.0	3.15	5.0	K1	M1

Continued from the preceding pa	age. 🔰							
Part Number	Temp. Char.	Rated Voltage	Capacitance	Dimensions LxW (mm)	Dimension T (mm)	Lead Space F (mm)	Lead Style Code Bulk	Lead Style Code Taping
RDE5C2E681J2 H03	COG (EIA)	250Vdc	680pF±5%	5.5×4.0	3.15	5.0	K1	M1
RDE5C2E821J2□□H03□	COG (EIA)	250Vdc	820pF±5%	5.5×4.0	3.15	5.0	K1	M1
RDE5C2E102J2 H03	COG (EIA)	250Vdc	1000pF±5%	5.5×4.0	3.15	5.0	K1	M1
RDE5C2E122J2 H03	COG (EIA)	250Vdc	1200pF±5%	5.5×4.0	3.15	5.0	K1	M1
RDE5C2E152J2 H03	COG (EIA)	250Vdc	1500pF±5%	5.5×4.0	3.15	5.0	K1	M1
RDE5C2E182J2 H03	COG (EIA)	250Vdc	1800pF±5%	5.5×4.0	3.15	5.0	K1	M1
RDE5C2E222J2 H03	COG (EIA)	250Vdc	2200pF±5%	5.5×4.0	3.15	5.0	K1	M1
RDE5C2E272J2 H03	COG (EIA)	250Vdc	2700pF±5%	5.5×4.0	3.15	5.0	K1	M1
RDE5C2E332J2 H03	COG (EIA)	250Vdc	3300pF±5%	5.5×4.0	3.15	5.0	K1	M1
RDE5C2E392J2 H03	COG (EIA)	250Vdc	3900pF±5%	5.5×4.0	3.15	5.0	K1	M1
RDE5C2E472J2	COG (EIA)	250Vdc	4700pF±5%	5.5×4.0	3.15	5.0	K1	M1
RDE5C2E562J2 H03	COG (EIA)	250Vdc	5600pF±5%	5.5×4.0	3.15	5.0	K1	M1
RDE5C2E682J2 H03	COG (EIA)	250Vdc	6800pF±5%	5.5×4.0	3.15	5.0	K1	M1
RDE5C2E822J2 H03	COG (EIA)	250Vdc	8200pF±5%	5.5×4.0	3.15	5.0	K1	M1
RDE5C2E103J2 H03	COG (EIA)	250Vdc 250Vdc	10000pF±5%	5.5×4.0	3.15	5.0	K1	M1
RDE5C2E123J2 H03	COG (EIA)	250Vdc	12000pF±5%	5.5×4.0 5.5×4.0	3.15	5.0	K1	M1
	, ,				3.15	5.0		M1
RDE5C2E153J2 H03 RDE5C2J100J2 H03	COG (EIA)	250Vdc 630Vdc	15000pF±5% 10pF±5%	5.5×4.0 5.5×4.0	3.15	5.0	K1 K1	M1 M1
	· , ,							
RDE5C2J12OJ2 H03	COG (EIA)	630Vdc	12pF±5%	5.5×4.0 5.5×4.0	3.15	5.0	K1	M1
RDE5C2J150J2 H03	COG (EIA)	630Vdc	15pF±5%		3.15	5.0	K1	M1
RDE5C2J180J2 H03	COG (EIA)	630Vdc	18pF±5%	5.5×4.0	3.15	5.0	K1	M1
RDE5C2J220J2 H03	COG (EIA)	630Vdc	22pF±5%	5.5×4.0	3.15	5.0	K1	M1
RDE5C2J270J2 H03	COG (EIA)	630Vdc	27pF±5%	5.5×4.0	3.15	5.0	K1	M1
RDE5C2J330J2 H03	COG (EIA)	630Vdc	33pF±5%	5.5×4.0	3.15	5.0	K1	M1
RDE5C2J390J2 H03	COG (EIA)	630Vdc	39pF±5%	5.5×4.0	3.15	5.0	K1	M1
RDE5C2J470J2 H03	COG (EIA)	630Vdc	47pF±5%	5.5×4.0	3.15	5.0	K1	M1
RDE5C2J560J2 H03	COG (EIA)	630Vdc	56pF±5%	5.5×4.0	3.15	5.0	K1	M1
RDE5C2J680J2 H03	COG (EIA)	630Vdc	68pF±5%	5.5×4.0	3.15	5.0	K1	M1
RDE5C2J820J2 H03	COG (EIA)	630Vdc	82pF±5%	5.5×4.0	3.15	5.0	K1	M1
RDE5C2J101J2 H03	COG (EIA)	630Vdc	100pF±5%	5.5×4.0	3.15	5.0	K1	M1
RDE5C2J121J2 H03	COG (EIA)	630Vdc	120pF±5%	5.5×4.0	3.15	5.0	K1	M1
RDE5C2J151J2 H03	COG (EIA)	630Vdc	150pF±5%	5.5×4.0	3.15	5.0	K1	M1
RDE5C2J181J2 H03	COG (EIA)	630Vdc	180pF±5%	5.5×4.0	3.15	5.0	K1	M1
RDE5C2J221J2 H03	COG (EIA)	630Vdc	220pF±5%	5.5×4.0	3.15	5.0	K1	M1
RDE5C2J271J2 H03	COG (EIA)	630Vdc	270pF±5%	5.5×4.0	3.15	5.0	K1	M1
RDE5C2J331J2 H03	COG (EIA)	630Vdc	330pF±5%	5.5×4.0	3.15	5.0	K1	M1
RDE5C2J391J2 H03	COG (EIA)	630Vdc	390pF±5%	5.5×4.0	3.15	5.0	K1	M1
RDE5C2J471J2 H03	COG (EIA)	630Vdc	470pF±5%	5.5×4.0	3.15	5.0	K1	M1
RDE5C2J561J2 H03	COG (EIA)	630Vdc	560pF±5%	5.5×4.0	3.15	5.0	K1	M1
RDE5C2J681J2 H03	COG (EIA)	630Vdc	680pF±5%	5.5×4.0	3.15	5.0	K1	M1
RDE5C2J821J2 H03	COG (EIA)	630Vdc	820pF±5%	5.5×4.0	3.15	5.0	K1	M1
RDE5C2J102J2 H03	COG (EIA)	630Vdc	1000pF±5%	5.5×4.0	3.15	5.0	K1	M1
RDE5C2J122J2 H03	COG (EIA)	630Vdc	1200pF±5%	5.5×4.0	3.15	5.0	K1	M1
RDE5C2J152J2 H03	COG (EIA)	630Vdc	1500pF±5%	5.5×4.0	3.15	5.0	K1	M1
RDE5C2J182J2 H03	COG (EIA)	630Vdc	1800pF±5%	5.5×4.0	3.15	5.0	K1	M1
RDE5C2J222J2 H03	COG (EIA)	630Vdc	2200pF±5%	5.5×4.0	3.15	5.0	K1	M1
RDE5C2J272J2 H03	COG (EIA)	630Vdc	2700pF±5%	5.5×4.0	3.15	5.0	K1	M1
RDE5C2J332J2 H03	COG (EIA)	630Vdc	3300pF±5%	5.5×4.0	3.15	5.0	K1	M1
RDE5C3A100J2 H03	COG (EIA)	1000Vdc	10pF±5%	5.5×4.0	3.15	5.0	K1	M1
RDE5C3A120J2 H03	COG (EIA)	1000Vdc	12pF±5%	5.5×4.0	3.15	5.0	K1	M1
RDE5C3A150J2 H03	COG (EIA)	1000Vdc	15pF±5%	5.5×4.0	3.15	5.0	K1	M1
RDE5C3A180J2 H03	COG (EIA)	1000Vdc	18pF±5%	5.5×4.0	3.15	5.0	K1	M1
RDE5C3A220J2 H03	COG (EIA)	1000Vdc	22pF±5%	5.5×4.0	3.15	5.0	K1	M1
RDE5C3A270J2 H03	COG (EIA)	1000Vdc	27pF±5%	5.5×4.0	3.15	5.0	K1	M1
RDE5C3A330J2 H03	COG (EIA)	1000Vdc	33pF±5%	5.5×4.0	3.15	5.0	K1	M1
RDE5C3A390J2 H03	COG (EIA)	1000Vdc	39pF±5%	5.5×4.0	3.15	5.0	K1	M1
RDE5C3A470J2□□H03□	COG (EIA)	1000Vdc	47pF±5%	5.5×4.0	3.15	5.0	K1	M1

Continued from the preceding page. ${f \Sigma}$

Continued from the preceding pa	age. 🔰							
Part Number	Temp. Char.	Rated Voltage	Capacitance	Dimensions LxW (mm)	Dimension T (mm)	Lead Space F (mm)	Lead Style Code Bulk	Lead Style Code Taping
RDE5C3A560J2 H03	COG (EIA)	1000Vdc	56pF±5%	5.5×4.0	3.15	5.0	K1	M1
RDE5C3A680J2□□H03□	COG (EIA)	1000Vdc	68pF±5%	5.5×4.0	3.15	5.0	K1	M1
RDE5C3A820J2 H03	COG (EIA)	1000Vdc	82pF±5%	5.5×4.0	3.15	5.0	K1	M1
RDE5C3A101J2 H03	COG (EIA)	1000Vdc	100pF±5%	5.5×4.0	3.15	5.0	K1	M1
RDE5C3A121J2 H03	COG (EIA)	1000Vdc	120pF±5%	5.5×4.0	3.15	5.0	K1	M1
RDE5C3A151J2 H03	COG (EIA)	1000Vdc	150pF±5%	5.5×4.0	3.15	5.0	K1	M1
RDE5C3A181J2 H03	COG (EIA)	1000Vdc	180pF±5%	5.5×4.0	3.15	5.0	K1	M1
RDE5C3A221J2□□H03□	COG (EIA)	1000Vdc	220pF±5%	5.5×4.0	3.15	5.0	K1	M1
RDE5C3A271J2 H03	COG (EIA)	1000Vdc	270pF±5%	5.5×4.0	3.15	5.0	K1	M1
RDE5C3A331J2 H03	COG (EIA)	1000Vdc	330pF±5%	5.5×4.0	3.15	5.0	K1	M1
RDE5C3A391J2□□H03□	COG (EIA)	1000Vdc	390pF±5%	5.5×4.0	3.15	5.0	K1	M1
RDE5C3A471J2□□H03□	COG (EIA)	1000Vdc	470pF±5%	5.5×4.0	3.15	5.0	K1	M1
RDE5C3A561J2 H03	COG (EIA)	1000Vdc	560pF±5%	5.5×4.0	3.15	5.0	K1	M1
RDE5C3A681J2□□H03□	COG (EIA)	1000Vdc	680pF±5%	5.5×4.0	3.15	5.0	K1	M1
RDE5C3A821J2 H03	COG (EIA)	1000Vdc	820pF±5%	5.5×4.0	3.15	5.0	K1	M1
RDE5C3A102J2 H03	COG (EIA)	1000Vdc	1000pF±5%	5.5×4.0	3.15	5.0	K1	M1
RDE7U2E101J1 H03	U2J (EIA)	250Vdc	100pF±5%	4.5×3.5	3.15	5.0	K1	M1
RDE7U2E151J1 H03	U2J (EIA)	250Vdc	150pF±5%	4.5×3.5	3.15	5.0	K1	M1
RDE7U2E221J1 H03	U2J (EIA)	250Vdc	220pF±5%	4.5×3.5	3.15	5.0	K1	M1
RDE7U2E331J1 H03	U2J (EIA)	250Vdc	330pF±5%	4.5×3.5	3.15	5.0	K1	M1
RDE7U2E471J1 H03	U2J (EIA)	250Vdc	470pF±5%	4.5×3.5	3.15	5.0	K1	M1
RDE7U2E681J1□□H03□	U2J (EIA)	250Vdc	680pF±5%	4.5×3.5	3.15	5.0	K1	M1
RDE7U2E102J1 H03	U2J (EIA)	250Vdc	1000pF±5%	4.5×3.5	3.15	5.0	K1	M1
RDE7U2E152J1□□H03□	U2J (EIA)	250Vdc	1500pF±5%	4.5×3.5	3.15	5.0	K1	M1
RDE7U2E222J1□□H03□	U2J (EIA)	250Vdc	2200pF±5%	4.5×3.5	3.15	5.0	K1	M1
RDE7U2E332J1 H03	U2J (EIA)	250Vdc	3300pF±5%	4.5×3.5	3.15	5.0	K1	M1
RDE7U2E472J1 H03	U2J (EIA)	250Vdc	4700pF±5%	4.5×3.5	3.15	5.0	K1	M1
RDE7U2E682J2□□H03□	U2J (EIA)	250Vdc	6800pF±5%	5.5×4.0	3.15	5.0	K1	M1
RDE7U2E103J2 H03	U2J (EIA)	250Vdc	10000pF±5%	5.5×4.0	3.15	5.0	K1	M1
RDE7U2E153J2 H03	U2J (EIA)	250Vdc	15000pF±5%	5.5×4.0	3.15	5.0	K1	M1
RDE7U2E223J2 H03	U2J (EIA)	250Vdc	22000pF±5%	5.5×4.0	3.15	5.0	K1	M1
RDE7U2E333J3 H03	U2J (EIA)	250Vdc	33000pF±5%	5.5×5.0	4.0	5.0	K1	M1
RDE7U2E473J3 H03	U2J (EIA)	250Vdc	47000pF±5%	5.5×5.0	4.0	5.0	K1	M1
RDE7U2J100J2 H03	U2J (EIA)	630Vdc	10pF±5%	5.5×4.0	3.15	5.0	K1	M1
RDE7U2J150J2 H03	U2J (EIA)	630Vdc	15pF±5%	5.5×4.0	3.15	5.0	K1	M1
RDE7U2J220J2 H03	U2J (EIA)	630Vdc	22pF±5%	5.5×4.0	3.15	5.0	K1	M1
RDE7U2J330J2 H03	U2J (EIA)	630Vdc	33pF±5%	5.5×4.0	3.15	5.0	K1	M1
RDE7U2J470J2 H03	U2J (EIA)	630Vdc	47pF±5%	5.5×4.0	3.15	5.0	K1	M1
RDE7U2J680J2 H03	U2J (EIA)	630Vdc	68pF±5%	5.5×4.0	3.15	5.0	K1	M1
RDE7U2J101J2 H03	U2J (EIA)	630Vdc	100pF±5%	5.5×4.0	3.15	5.0	K1	M1
RDE7U2J151J2 H03	` ′	630Vdc 630Vdc	150pF±5% 220pF±5%	5.5×4.0 5.5×4.0	3.15 3.15	5.0	K1	M1
RDE7U2J221J2 H03	U2J (EIA)				3.15	5.0 5.0	K1	M1
RDE7U2J331J2 H03 RDE7U2J471J2 H03	U2J (EIA) U2J (EIA)	630Vdc 630Vdc	330pF±5% 470pF±5%	5.5×4.0 5.5×4.0	3.15	5.0	K1 K1	M1 M1
RDE7U2J681J2 H03	U2J (EIA)	630Vdc	680pF±5%	5.5×4.0	3.15	5.0	K1	M1
RDE7U2J102J2 H03	U2J (EIA)	630Vdc	1000pF±5%	5.5×4.0	3.15	5.0	K1	M1
RDE7U2J152J2 H03	U2J (EIA)	630Vdc	1500pF±5%	5.5×4.0	3.15	5.0	K1	M1
RDE7U2J222J2 H03	U2J (EIA)	630Vdc	2200pF±5%	5.5×4.0	3.15	5.0	K1	M1
RDE7U2J332J2 H03	U2J (EIA)	630Vdc	3300pF±5%	5.5×4.0	3.15	5.0	K1	M1
RDE7U2J472J2 H03	U2J (EIA)	630Vdc	4700pF±5%	5.5×4.0	3.15	5.0	K1	M1
RDE7U2J682J3	U2J (EIA)	630Vdc	6800pF±5%	5.5×5.0	4.0	5.0	K1	M1
RDE7U2J103J3 H03	U2J (EIA)	630Vdc	10000pF±5%	5.5×5.0	4.0	5.0	K1	M1
RDE7U2J153J4 H03	U2J (EIA)	630Vdc	15000pF±5%	7.5×5.5	4.0	5.0	K1	M1
RDE7U2J223J4 H03	U2J (EIA)	630Vdc	22000pF±5%	7.5×5.5	4.0	5.0	K1	M1
RDE7U2J333J5 H03	U2J (EIA)	630Vdc	33000pF±5%	7.5×8.0	4.0	5.0	B1	E1
RDE7U2J473J5 H03	U2J (EIA)	630Vdc	47000pF±5%	7.5×8.0	4.0	5.0	B1	E1
RDE7U2J943JU□□H03□	U2J (EIA)	630Vdc	94000pF±5%	7.7×13.0	4.0	5.0	B1	E1
	· · ·							

Part Number	Temp. Char.	Rated Voltage	Capacitance	Dimensions LxW (mm)	Dimension T (mm)	Lead Space F (mm)	Lead Style Code Bulk	Lead Style Code Taping
RDE7U3A100J2 H03	U2J (EIA)	1000Vdc	10pF±5%	5.5×4.0	3.15	5.0	K1	M1
RDE7U3A150J2□□H03□	U2J (EIA)	1000Vdc	15pF±5%	5.5×4.0	3.15	5.0	K1	M1
RDE7U3A220J2□□H03□	U2J (EIA)	1000Vdc	22pF±5%	5.5×4.0	3.15	5.0	K1	M1
RDE7U3A330J2□□H03□	U2J (EIA)	1000Vdc	33pF±5%	5.5×4.0	3.15	5.0	K1	M1
RDE7U3A470J2□□H03□	U2J (EIA)	1000Vdc	47pF±5%	5.5×4.0	3.15	5.0	K1	M1
RDE7U3A680J2 H03	U2J (EIA)	1000Vdc	68pF±5%	5.5×4.0	3.15	5.0	K1	M1
RDE7U3A101J2 H03	U2J (EIA)	1000Vdc	100pF±5%	5.5×4.0	3.15	5.0	K1	M1
RDE7U3A151J2□□H03□	U2J (EIA)	1000Vdc	150pF±5%	5.5×4.0	3.15	5.0	K1	M1
RDE7U3A221J2□□H03□	U2J (EIA)	1000Vdc	220pF±5%	5.5×4.0	3.15	5.0	K1	M1
RDE7U3A331J2□□H03□	U2J (EIA)	1000Vdc	330pF±5%	5.5×4.0	3.15	5.0	K1	M1
RDE7U3A471J2□□H03□	U2J (EIA)	1000Vdc	470pF±5%	5.5×4.0	3.15	5.0	K1	M1
RDE7U3A681J2□□H03□	U2J (EIA)	1000Vdc	680pF±5%	5.5×4.0	3.15	5.0	K1	M1
RDE7U3A102J2□□H03□	U2J (EIA)	1000Vdc	1000pF±5%	5.5×4.0	3.15	5.0	K1	M1
RDE7U3A152J3□□H03□	U2J (EIA)	1000Vdc	1500pF±5%	5.5×5.0	4.0	5.0	K1	M1
RDE7U3A222J3□□H03□	U2J (EIA)	1000Vdc	2200pF±5%	5.5×5.0	4.0	5.0	K1	M1
RDE7U3A332J4□□H03□	U2J (EIA)	1000Vdc	3300pF±5%	7.5×5.5	4.0	5.0	K1	M1
RDE7U3A472J4□□H03□	U2J (EIA)	1000Vdc	4700pF±5%	7.5×5.5	4.0	5.0	K1	M1
RDE7U3A682J5□□H03□	U2J (EIA)	1000Vdc	6800pF±5%	7.5×8.0	4.0	5.0	B1	E1
RDE7U3A103J5□□H03□	U2J (EIA)	1000Vdc	10000pF±5%	7.5×8.0	4.0	5.0	B1	E1
RDE7U3A203JU□□H03□	U2J (EIA)	1000Vdc	20000pF±5%	7.7×13.0	4.0	5.0	B1	E1

 $Two \ blank \ columns \ are \ filled \ with \ the \ lead \ style \ code. \ Please \ refer \ to \ the \ 3 \ columns \ on \ the \ right \ for \ the \ appropriate \ code.$

Part Number	Temp. Char.	Rated Voltage	Capacitance	Dimensions LxW (mm)	Dimension T (mm)	Lead Space F (mm)	Lead Style Code Bulk	Lead Style Code Taping
RDER71E104K0□□H03□	X7R (EIA)	25Vdc	0.1µF±10%	4.0×3.5	2.5	5.0	K1	M1
RDER71E104K0□□H03□	X7R (EIA)	25Vdc	0.1µF±10%	5.0×3.5	2.5	2.5	P1	S1
RDEC71E224K0□□H03□	X7S (EIA)	25Vdc	0.22µF±10%	4.0×3.5	2.5	5.0	K1	M1
RDEC71E224K0□□H03□	X7S (EIA)	25Vdc	0.22µF±10%	5.0×3.5	2.5	2.5	P1	S1
RDEC71E474K0□□H03□	X7S (EIA)	25Vdc	0.47µF±10%	4.0×3.5	2.5	5.0	K1	M1
RDEC71E474K0□□H03□	X7S (EIA)	25Vdc	0.47µF±10%	5.0×3.5	2.5	2.5	P1	S1
RDEC71E105K0□□H03□	X7S (EIA)	25Vdc	1.0µF±10%	4.0×3.5	2.5	5.0	K1	M1
RDEC71E105K0□□H03□	X7S (EIA)	25Vdc	1.0µF±10%	5.0×3.5	2.5	2.5	P1	S1
RDEC71E225K1□□H03□	X7S (EIA)	25Vdc	2.2µF±10%	4.5×3.5	3.15	5.0	K1	M1
RDEC71E225K1□□H03□	X7S (EIA)	25Vdc	2.2µF±10%	5.0×3.5	3.15	2.5	P1	S1
RDEC71E475K2□□H03□	X7S (EIA)	25Vdc	4.7µF±10%	5.5×4.0	3.15	2.5	P1	S1
RDEC71E475K2 H03	X7S (EIA)	25Vdc	4.7µF±10%	5.5×4.0	3.15	5.0	K1	M1
RDEC71E106K2 H03	X7S (EIA)	25Vdc	10μF±10%	5.5×4.0	3.15	2.5	P1	S1
RDEC71E106K2□□H03□	X7S (EIA)	25Vdc	10µF±10%	5.5×4.0	3.15	5.0	K1	M1
RDEC71E226K3□□H03□	X7S (EIA)	25Vdc	22µF±10%	5.5×5.0	4.0	2.5	P1	S1
RDEC71E226K3□□H03□	X7S (EIA)	25Vdc	22µF±10%	5.5×5.0	4.0	5.0	K1	M1
RDEC71E476MW H03	X7S (EIA)	25Vdc	47μF±20%	5.5×7.5	4.0	5.0	K1	M1
RDER71H221K0□□H03□	X7R (EIA)	50Vdc	220pF±10%	4.0×3.5	2.5	5.0	K1	M1
RDER71H221K0□□H03□	X7R (EIA)	50Vdc	220pF±10%	5.0×3.5	2.5	2.5	P1	S1
RDER71H331K0□□H03□	X7R (EIA)	50Vdc	330pF±10%	4.0×3.5	2.5	5.0	K1	M1
RDER71H331K0□□H03□	X7R (EIA)	50Vdc	330pF±10%	5.0×3.5	2.5	2.5	P1	S1
RDER71H471K0□□H03□	X7R (EIA)	50Vdc	470pF±10%	4.0×3.5	2.5	5.0	K1	M1
RDER71H471K0□□H03□	X7R (EIA)	50Vdc	470pF±10%	5.0×3.5	2.5	2.5	P1	S1
RDER71H681K0□□H03□	X7R (EIA)	50Vdc	680pF±10%	4.0×3.5	2.5	5.0	K1	M1
RDER71H681K0□□H03□	X7R (EIA)	50Vdc	680pF±10%	5.0×3.5	2.5	2.5	P1	S1
RDER71H102K0□□H03□	X7R (EIA)	50Vdc	1000pF±10%	4.0×3.5	2.5	5.0	K1	M1
RDER71H102K0□□H03□	X7R (EIA)	50Vdc	1000pF±10%	5.0×3.5	2.5	2.5	P1	S1
RDER71H152K0□□H03□	X7R (EIA)	50Vdc	1500pF±10%	4.0×3.5	2.5	5.0	K1	M1
RDER71H152K0□□H03□	X7R (EIA)	50Vdc	1500pF±10%	5.0×3.5	2.5	2.5	P1	S1
RDER71H222K0□□H03□	X7R (EIA)	50Vdc	2200pF±10%	4.0×3.5	2.5	5.0	K1	M1

The last blank column is filled with the packaging code. (B: bulk, A: ammo pack)

Continued from the preceding pa	ge. 🔰							
Part Number	Temp. Char.	Rated Voltage	Capacitance	Dimensions LxW (mm)	Dimension T (mm)	Lead Space F (mm)	Lead Style Code Bulk	Lead Style Code Taping
RDER71H222K0 H03	X7R (EIA)	50Vdc	2200pF±10%	5.0×3.5	2.5	2.5	P1	S1
RDER71H332K0□□H03□	X7R (EIA)	50Vdc	3300pF±10%	4.0×3.5	2.5	5.0	K1	M1
RDER71H332K0□□H03□	X7R (EIA)	50Vdc	3300pF±10%	5.0×3.5	2.5	2.5	P1	S1
RDER71H472K0 H03	X7R (EIA)	50Vdc	4700pF±10%	4.0×3.5	2.5	5.0	K1	M1
RDER71H472K0 H03	X7R (EIA)	50Vdc	4700pF±10%	5.0×3.5	2.5	2.5	P1	S1
RDER71H682K0 H03	X7R (EIA)	50Vdc	6800pF±10%	4.0×3.5	2.5	5.0	K1	M1
RDER71H682K0 H03	X7R (EIA)	50Vdc	6800pF±10%	5.0×3.5	2.5	2.5	P1	S1
RDER71H103K0 H03	X7R (EIA)	50Vdc	10000pF±10%	4.0×3.5	2.5	5.0	K1	M1
RDER71H103K0 H03	X7R (EIA)	50Vdc	10000pF±10%	5.0×3.5	2.5	2.5	P1	S1
RDER71H153K0 H03	X7R (EIA)	50Vdc	15000pF±10%	4.0×3.5	2.5	5.0	K1	M1
RDER71H153K0 H03	X7R (EIA)	50Vdc	15000pF±10%	5.0×3.5	2.5	2.5	P1	S1
RDER71H223K0 H03	X7R (EIA)	50Vdc	22000pF±10%	4.0×3.5	2.5	5.0	K1	M1
RDER71H223K0 H03	X7R (EIA)	50Vdc	22000pF±10%	5.0×3.5	2.5	2.5	P1	S1
RDER71H333K0 H03	X7R (EIA)	50Vdc	33000pF±10%	4.0×3.5	2.5	5.0	K1	M1
	· , ,		· ·	5.0×3.5	-			
RDER71H333K0 H03	X7R (EIA)	50Vdc	33000pF±10%		2.5	2.5	P1	S1 M1
RDER71H473K0 H03	X7R (EIA)	50Vdc	47000pF±10%	4.0×3.5		5.0	K1	M1
RDER71H473K0 H03	X7R (EIA)	50Vdc	47000pF±10%	5.0×3.5	2.5	2.5	P1	S1
RDER71H683K0 H03	X7R (EIA)	50Vdc	68000pF±10%	4.0×3.5	2.5	5.0	K1	M1
RDER71H683K0 H03	X7R (EIA)	50Vdc	68000pF±10%	5.0×3.5	2.5	2.5	P1	S1
RDER71H104K0 H03	X7R (EIA)	50Vdc	0.1µF±10%	4.0×3.5	2.5	5.0	K1	M1
RDER71H104K0 H03	X7R (EIA)	50Vdc	0.1µF±10%	5.0×3.5	2.5	2.5	P1	S1
RDER71H154K1 H03	X7R (EIA)	50Vdc	0.15µF±10%	4.5×3.5	3.15	5.0	K1	M1
RDER71H154K1 H03	X7R (EIA)	50Vdc	0.15µF±10%	5.0×3.5	3.15	2.5	P1	S1
RDER71H224K1 H03	X7R (EIA)	50Vdc	0.22µF±10%	4.5×3.5	3.15	5.0	K1	M1
RDER71H224K1 H03	X7R (EIA)	50Vdc	0.22µF±10%	5.0×3.5	3.15	2.5	P1	S1
RDER71H334K1 H03	X7R (EIA)	50Vdc	0.33µF±10%	4.5×3.5	3.15	5.0	K1	M1
RDER71H334K1 H03	X7R (EIA)	50Vdc	0.33µF±10%	5.0×3.5	3.15	2.5	P1	S1
RDER71H474K1 H03	X7R (EIA)	50Vdc	0.47µF±10%	4.5×3.5	3.15	5.0	K1	M1
RDER71H474K1 H03	X7R (EIA)	50Vdc	0.47µF±10%	5.0×3.5	3.15	2.5	P1	S1
RDER71H684K2 H03	X7R (EIA)	50Vdc	0.68µF±10%	5.5×4.0	3.15	2.5	P1	S1
RDER71H684K2 H03	X7R (EIA)	50Vdc	0.68µF±10%	5.5×4.0	3.15	5.0	K1	M1
RDEC71H105K1 H03	X7S (EIA)	50Vdc	1.0µF±10%	4.5×3.5	3.15	5.0	K1	M1
RDEC71H105K1 H03	X7S (EIA)	50Vdc	1.0µF±10%	5.0×3.5	3.15	2.5	P1	S1
RDER71H105K2 H03	X7R (EIA)	50Vdc	1.0µF±10%	5.5×4.0	3.15	2.5	P1	S1
RDER71H105K2 H03	X7R (EIA)	50Vdc	1.0µF±10%	5.5×4.0	3.15	5.0	K1	M1
RDER71H155K2 H03	X7R (EIA)	50Vdc	1.5µF±10%	5.5×4.0	3.15	2.5	P1	S1
RDER71H155K2 H03	X7R (EIA)	50Vdc	1.5µF±10%	5.5×4.0	3.15	5.0	K1	M1
RDER71H225K2 H03	X7R (EIA)	50Vdc	2.2µF±10%	5.5×4.0	3.15	2.5	P1	S1
RDER71H225K2 H03	X7R (EIA)	50Vdc	2.2µF±10%	5.5×4.0	3.15	5.0	K1	M1
RDER71H335K3 H03	X7R (EIA)	50Vdc	3.3µF±10%	5.5×5.0	4.0	2.5	P1	S1
RDER71H335K3 H03	X7R (EIA)	50Vdc	3.3µF±10%	5.5×5.0	4.0	5.0	K1	M1
RDEC71H475K2 H03	X7S (EIA)	50Vdc	4.7µF±10%	5.5×4.0	3.15	2.5 5.0	P1	S1
RDEC71H475K2 H03	X7S (EIA)	50Vdc	4.7μF±10%	5.5×4.0	3.15		K1	M1
RDEC71H106K3 H03	X7S (EIA)	50Vdc 50Vdc	10µF±10%	5.5×5.0 5.5×5.0	4.0	2.5 5.0	P1 K1	S1 M1
RDEC71H336MWDDH03D	X7S (EIA)	50Vdc	10µF±10%		4.0	5.0	K1	M1
RDEC71H226MW H03	· , ,	100Vdc	22µF±20%	5.5×7.5 4.0×3.5	2.5	5.0	K1	M1
RDER72A221K0 H03	X7R (EIA)	100Vdc	220pF±10%		2.5	2.5	P1	S1
RDER72A221K0 H03	X7R (EIA)		220pF±10%	5.0×3.5				M1
RDER72A331K0□□H03□ RDER72A331K0□□H03□	X7R (EIA) X7R (EIA)	100Vdc 100Vdc	330pF±10% 330pF±10%	4.0×3.5 5.0×3.5	2.5	5.0 2.5	K1 P1	S1
RDER72A471K0 H03	X7R (EIA)	100Vdc		4.0×3.5	2.5	5.0	K1	M1
RDER72A471K0 H03		100Vdc	470pF±10%	5.0×3.5	2.5	2.5	P1	S1
RDER72A471K0 H03 RDER72A681K0 H03	X7R (EIA) X7R (EIA)	100Vdc	470pF±10%	4.0×3.5	2.5	5.0	K1	M1
RDER72A681K0 H03 RDER72A681K0 H03	· , ,	100Vdc	680pF±10%		2.5	2.5	P1	S1
RDER72A681K0 H03 RDER72A102K0 H03	X7R (EIA) X7R (EIA)	100Vdc	680pF±10% 1000pF±10%	5.0×3.5 4.0×3.5	2.5	5.0	K1	M1
RDER72A102K0 H03	X7R (EIA)	100Vdc	1000pF±10% 1000pF±10%	5.0×3.5	2.5	2.5	P1	S1
		100Vdc			2.5	5.0	K1	M1
RDER72A152K0 H03	X7R (EIA)	100 /00	1500pF±10%	4.0×3.5	2.5	5.0	L/T	1,17

Continued from the preceding pa	ge. 🔰							
Part Number	Temp. Char.	Rated Voltage	Capacitance	Dimensions LxW (mm)	Dimension T (mm)	Lead Space F (mm)	Lead Style Code Bulk	Lead Style Code Taping
RDER72A152K0 H03	X7R (EIA)	100Vdc	1500pF±10%	5.0×3.5	2.5	2.5	P1	S1
RDER72A222K0□□H03□	X7R (EIA)	100Vdc	2200pF±10%	4.0×3.5	2.5	5.0	K1	M1
RDER72A222K0□□H03□	X7R (EIA)	100Vdc	2200pF±10%	5.0×3.5	2.5	2.5	P1	S1
RDER72A332K0□□H03□	X7R (EIA)	100Vdc	3300pF±10%	4.0×3.5	2.5	5.0	K1	M1
RDER72A332K0□□H03□	X7R (EIA)	100Vdc	3300pF±10%	5.0×3.5	2.5	2.5	P1	S1
RDER72A472K0 H03	X7R (EIA)	100Vdc	4700pF±10%	4.0×3.5	2.5	5.0	K1	M1
RDER72A472K0 H03	X7R (EIA)	100Vdc	4700pF±10%	5.0×3.5	2.5	2.5	P1	S1
RDER72A682K0□□H03□	X7R (EIA)	100Vdc	6800pF±10%	4.0×3.5	2.5	5.0	K1	M1
RDER72A682K0 H03	X7R (EIA)	100Vdc	6800pF±10%	5.0×3.5	2.5	2.5	P1	S1
RDER72A103K0 H03	X7R (EIA)	100Vdc	10000pF±10%	4.0×3.5	2.5	5.0	K1	M1
RDER72A103K0 H03	X7R (EIA)	100Vdc	10000pF±10%	5.0×3.5	2.5	2.5	P1	S1
RDER72A153K0 H03	X7R (EIA)	100Vdc	15000pF±10%	4.0×3.5	2.5	5.0	K1	M1
RDER72A153K0 H03	X7R (EIA)	100Vdc	15000pF±10%	5.0×3.5	2.5	2.5	P1	S1
RDER72A223K0 H03	X7R (EIA)	100Vdc	22000pF±10%	4.0×3.5	2.5	5.0	K1	M1
RDER72A223K0 H03	X7R (EIA)	100Vdc	22000pF±10%	5.0×3.5	2.5	2.5	P1	S1
RDER72A333K1 H03	X7R (EIA)	100Vdc	33000pF±10%	4.5×3.5	3.15	5.0	K1	M1
RDER72A333K1 H03	X7R (EIA)	100Vdc	33000pF±10%	5.0×3.5	3.15	2.5	P1	S1
RDER72A473K1 H03	X7R (EIA)	100Vdc	47000pF±10%	4.5×3.5	3.15	5.0	K1	M1
RDER72A473K1 H03	X7R (EIA)	100Vdc	47000pF±10%	4.5×3.5 5.0×3.5	3.15	2.5	P1	S1
RDER72A683K1 H03	X7R (EIA)	100Vdc	68000pF±10%	4.5×3.5	3.15	5.0	K1	M1
RDER72A683K1 H03 H03	X7R (EIA)	100Vdc	68000pF±10%	4.5×3.5 5.0×3.5	3.15	2.5	P1	S1
	X7R (EIA)	100Vdc	0.1μF±10%	4.5×3.5	3.15	5.0	K1	M1
RDER72A104K1 H03	` '	100Vdc	· ·	4.5×3.5 5.0×3.5	3.15	2.5	P1	S1
RDER72A164K3 DH03	X7R (EIA) X7R (EIA)		0.1µF±10%	5.5×4.0		2.5	P1	S1
RDER72A154K2 H03		100Vdc	0.15µF±10%		3.15			
RDER72A154K2 H03	X7R (EIA)	100Vdc	0.15µF±10%	5.5×4.0	3.15	5.0	K1	M1
RDER72A224K1 H03	X7R (EIA)	100Vdc 100Vdc	0.22μF±10%	4.5×3.5	3.15 3.15	5.0	K1 P1	M1 S1
RDER72A224K1 H03 RDER72A334K1 H03	X7R (EIA) X7R (EIA)	100Vdc	0.22μF±10%	5.0×3.5 4.5×3.5	3.15	2.5		
	` '	100Vdc	0.33µF±10%	4.5×3.5 5.0×3.5	3.15	5.0 2.5	K1 P1	M1 S1
RDER72A334K1 HO3	X7R (EIA) X7R (EIA)	100Vdc	0.33µF±10% 0.47µF±10%	4.5×3.5	3.15	5.0	K1	M1
RDER72A474K1 H03 RDER72A474K1 H03	X7R (EIA)	100Vdc	0.47μF±10% 0.47μF±10%	5.0×3.5	3.15	2.5	P1	S1
RDER72A474K1 H03 RDER72A684K2 H03	X7R (EIA)		· ·	5.0×3.5 5.5×4.0		2.5	P1	
	, ,	100Vdc	0.68µF±10%		3.15			S1
RDER72A684K2 H03	X7R (EIA)	100Vdc	0.68µF±10%	5.5×4.0	3.15	5.0	K1	M1 S1
RDER72A105K2 H03 RDER72A105K2 H03	X7R (EIA)	100Vdc 100Vdc	1.0µF±10% 1.0µF±10%	5.5×4.0 5.5×4.0	3.15 3.15	2.5 5.0	P1	
	X7R (EIA)		· ·				K1	M1
RDEC72A155K3 H03 RDEC72A155K3 H03	X7S (EIA) X7S (EIA)	100Vdc 100Vdc	1.5µF±10%	5.5×5.0 5.5×5.0	4.0	2.5 5.0	P1	S1 M1
RDEC72A225K3 H03	X73 (EIA)	100Vdc	1.5µF±10% 2.2µF±10%		4.0	2.5	K1 P1	S1
	X7S (EIA)			5.5×5.0				
RDEC72A225K3 H03	` '	100Vdc	2.2μF±10%	5.5×5.0	4.0	5.0	K1	M1
RDEC72A475MW H03 RDER72E102K1 H03	` ′	100Vdc	4.7μF±20%	5.5×7.5	4.0 3.15	5.0	K1	M1 M1
RDER72E102K1 H03 RDER72E152K1 H03	X7R (EIA)	250Vdc 250Vdc	1000pF±10%	4.5×3.5 4.5×3.5	3.15 3.15	5.0	K1 K1	M1 M1
	X7R (EIA)		1500pF±10%					
RDER72E222K1 H03	X7R (EIA)	250Vdc	2200pF±10%	4.5×3.5	3.15	5.0	K1	M1
RDER72E332K1 H03 RDER72E472K1 H03	X7R (EIA) X7R (EIA)	250Vdc 250Vdc	3300pF±10% 4700pF±10%	4.5×3.5 4.5×3.5	3.15 3.15	5.0	K1 K1	M1 M1
	, ,							
RDER72E682K1 H03	X7R (EIA)	250Vdc	6800pF±10%	4.5×3.5	3.15	5.0	K1	M1
RDER72E103K1 H03	X7R (EIA)	250Vdc	10000pF±10%	4.5×3.5	3.15	5.0	K1	M1
RDER72E153K1 H03	X7R (EIA)	250Vdc	15000pF±10%	4.5×3.5	3.15	5.0	K1	M1
RDER72E223K1 H03	X7R (EIA)	250Vdc	22000pF±10%	4.5×3.5	3.15	5.0	K1	M1
RDER72E333K2 H03	X7R (EIA)	250Vdc	33000pF±10%	5.5×4.0	3.15	5.0	K1	M1
RDER72E473K2 H03	X7R (EIA)	250Vdc	47000pF±10%	5.5×4.0	3.15	5.0	K1	M1
RDER72E683K2 H03	X7R (EIA)	250Vdc	68000pF±10%	5.5×4.0	3.15	5.0	K1	M1
RDER72E104K2 H03	X7R (EIA)	250Vdc	0.10µF±10%	5.5×4.0	3.15	5.0	K1	M1
RDER72E154K3 H03	X7R (EIA)	250Vdc	0.15µF±10%	5.5×5.0	3.15	5.0	K1	M1
RDER72E224K3 H03	X7R (EIA)	250Vdc	0.22µF±10%	5.5×5.0	3.15	5.0	K1	M1
RDER72E334K4 HO3	X7R (EIA)	250Vdc	0.33µF±10%	7.5×5.5	4.0	5.0	K1	M1
RDER72E474K4 H03	X7R (EIA)	250Vdc	0.47µF±10%	7.5×5.5	4.0	5.0	K1	M1

Continued from the preceding pa	ge. 🔰	Continued from the preceding page.									
Part Number	Temp. Char.	Rated Voltage	Capacitance	Dimensions LxW (mm)	Dimension T (mm)	Lead Space F (mm)	Lead Style Code Bulk	Lead Style Code Taping			
RDER72E684K5□□H03□	X7R (EIA)	250Vdc	0.68µF±10%	7.5×7.5	4.0	5.0	B1	E1			
RDER72E105K5 H03	X7R (EIA)	250Vdc	1.0µF±10%	7.5×7.5	4.0	5.0	B1	E1			
RDER72E225MU□□H03□	X7R (EIA)	250Vdc	2.2µF±20%	7.7×12.5	4.0	5.0	B1	E1			
RDER72H102K1□□H03□	X7R (EIA)	500Vdc	1000pF±10%	4.5×3.5	3.15	5.0	K1	M1			
RDER72H152K1□□H03□	X7R (EIA)	500Vdc	1500pF±10%	4.5×3.5	3.15	5.0	K1	M1			
RDER72H222K1 H03	X7R (EIA)	500Vdc	2200pF±10%	4.5×3.5	3.15	5.0	K1	M1			
RDER72H332K1□□H03□	X7R (EIA)	500Vdc	3300pF±10%	4.5×3.5	3.15	5.0	K1	M1			
RDER72H472K1□□H03□	X7R (EIA)	500Vdc	4700pF±10%	4.5×3.5	3.15	5.0	K1	M1			
RDER72H682K1□□H03□	X7R (EIA)	500Vdc	6800pF±10%	4.5×3.5	3.15	5.0	K1	M1			
RDER72H103K1□□H03□	X7R (EIA)	500Vdc	10000pF±10%	4.5×3.5	3.15	5.0	K1	M1			
RDER72H153K2□□H03□	X7R (EIA)	500Vdc	15000pF±10%	5.5×4.0	3.15	5.0	K1	M1			
RDER72H223K2□□H03□	X7R (EIA)	500Vdc	22000pF±10%	5.5×4.0	3.15	5.0	K1	M1			
RDER72H333K2□□H03□	X7R (EIA)	500Vdc	33000pF±10%	5.5×4.0	3.15	5.0	K1	M1			
RDER72H473K2□□H03□	X7R (EIA)	500Vdc	47000pF±10%	5.5×4.0	3.15	5.0	K1	M1			
RDER72H683K3□□H03□	X7R (EIA)	500Vdc	68000pF±10%	5.5×5.0	4.0	5.0	K1	M1			
RDER72H104K3□□H03□	X7R (EIA)	500Vdc	0.1µF±10%	5.5×5.0	4.0	5.0	K1	M1			
RDER72H154K4□□H03□	X7R (EIA)	500Vdc	0.15µF±10%	7.5×5.5	4.0	5.0	K1	M1			
RDER72H224K4□□H03□	X7R (EIA)	500Vdc	0.22µF±10%	7.5×5.5	4.0	5.0	K1	M1			
RDER72H334K5□□H03□	X7R (EIA)	500Vdc	0.33µF±10%	7.5×7.5	4.0	5.0	B1	E1			
RDER72H474K5□□H03□	X7R (EIA)	500Vdc	0.47µF±10%	7.5×7.5	4.0	5.0	B1	E1			
RDER72H684MU□□H03□	X7R (EIA)	500Vdc	0.68µF±20%	7.7×12.5	4.0	5.0	B1	E1			
RDER72H105MU□□H03□	X7R (EIA)	500Vdc	1.0µF±20%	7.7×12.5	4.0	5.0	B1	E1			
RDER72J102K2□□H03□	X7R (EIA)	630Vdc	1000pF±10%	5.5×4.0	3.15	5.0	K1	M1			
RDER72J152K2□□H03□	X7R (EIA)	630Vdc	1500pF±10%	5.5×4.0	3.15	5.0	K1	M1			
RDER72J222K2□□H03□	X7R (EIA)	630Vdc	2200pF±10%	5.5×4.0	3.15	5.0	K1	M1			
RDER72J332K2□□H03□	X7R (EIA)	630Vdc	3300pF±10%	5.5×4.0	3.15	5.0	K1	M1			
RDER72J472K2□□H03□	X7R (EIA)	630Vdc	4700pF±10%	5.5×4.0	3.15	5.0	K1	M1			
RDER72J682K2□□H03□	X7R (EIA)	630Vdc	6800pF±10%	5.5×4.0	3.15	5.0	K1	M1			
RDER72J103K2□□H03□	X7R (EIA)	630Vdc	10000pF±10%	5.5×4.0	3.15	5.0	K1	M1			
RDER72J153K2□□H03□	X7R (EIA)	630Vdc	15000pF±10%	5.5×4.0	3.15	5.0	K1	M1			
RDER72J223K2□□H03□	X7R (EIA)	630Vdc	22000pF±10%	5.5×4.0	3.15	5.0	K1	M1			
RDER72J333K3□□H03□	X7R (EIA)	630Vdc	33000pF±10%	5.5×5.0	4.0	5.0	K1	M1			
RDER72J473K3□□H03□	X7R (EIA)	630Vdc	47000pF±10%	5.5×5.0	4.0	5.0	K1	M1			
RDER72J683K4□□H03□	X7R (EIA)	630Vdc	68000pF±10%	7.5×5.5	4.0	5.0	K1	M1			
RDER72J104K4□□H03□	X7R (EIA)	630Vdc	0.10µF±10%	7.5×5.5	4.0	5.0	K1	M1			
RDER72J154K5□□H03□	X7R (EIA)	630Vdc	0.15µF±10%	7.5×8.0	4.0	5.0	B1	E1			
RDER72J224K5□□H03□	X7R (EIA)	630Vdc	0.22µF±10%	7.5×8.0	4.0	5.0	B1	E1			
RDER72J474MU□□H03□	X7R (EIA)	630Vdc	0.47µF±20%	7.7×13.0	4.0	5.0	B1	E1			
RDER73A471K2 H03	X7R (EIA)	1000Vdc	470pF±10%	5.5×4.0	3.15	5.0	K1	M1			
RDER73A681K2 H03	X7R (EIA)	1000Vdc	680pF±10%	5.5×4.0	3.15	5.0	K1	M1			
RDER73A102K2 H03	X7R (EIA)	1000Vdc	1000pF±10%	5.5×4.0	3.15	5.0	K1	M1			
RDER73A152K2□□H03□	X7R (EIA)	1000Vdc	1500pF±10%	5.5×4.0	3.15	5.0	K1	M1			
RDER73A222K2 H03	X7R (EIA)	1000Vdc	2200pF±10%	5.5×4.0	3.15	5.0	K1	M1			
RDER73A332K2 H03	X7R (EIA)	1000Vdc	3300pF±10%	5.5×4.0	3.15	5.0	K1	M1			
RDER73A472K2 H03	X7R (EIA)	1000Vdc	4700pF±10%	5.5×4.0	3.15	5.0	K1	M1			
RDER73A682K2 H03	X7R (EIA)	1000Vdc	6800pF±10%	5.5×4.0	3.15	5.0	K1	M1			
RDER73A103K2 H03	X7R (EIA)	1000Vdc	10000pF±10%	5.5×4.0	3.15	5.0	K1	M1			
RDER73A153K3 H03 H03	X7R (EIA)	1000Vdc 1000Vdc	15000pF±10%	5.5×5.0	4.0	5.0	K1	M1			
RDER73A223K3 H03 RDER73A333K4 H03	X7R (EIA) X7R (EIA)	1000Vdc	22000pF±10% 33000pF±10%	5.5×5.0 7.5×5.5	4.0	5.0	K1 K1	M1 M1			
RDER73A473K4 H03	X7R (EIA)	1000Vdc	47000pF±10%	7.5×5.5 7.5×5.5	4.0	5.0	K1	M1			
RDER73A683K5 - H03	X7R (EIA)	1000Vdc	68000pF±10%	7.5×8.0	4.0	5.0	B1	E1			
RDER73A104K5	X7R (EIA)	1000Vdc	0.10µF±10%	7.5×8.0	4.0	5.0	B1	E1			
RDER73A224MU H03	X7R (EIA)	1000Vdc	0.22µF±20%	7.7×13.0	4.0	5.0	B1	E1			
	()						_				

Two blank columns are filled with the lead style code. Please refer to the 3 columns on the right for the appropriate code.

The last blank column is filled with the packaging code. (B: bulk, A: ammo pack)

NIs	D		Sı	pecifi	cations	Took Mothed		
No.	Ite	m 	Temperature Compensating	Туре	High Dielectric Constant Type		Test Method	
1	Operating Ten Range	nperature	-55 to +125°C		Char. X7R, X7S: -55 to +125°C		-	
2	Appearance		No defects or abnormalitie	:S		Visual inspect	ion	
3	Dimension and	d Marking	See previous pages			Visual inspect	ion, Vernier Caliper	
		Between Terminals	No defects or abnormalitie	es		voltages of Ta	s should not be damaged when test ble are applied between the terminals harge/Discharge current ≤ 50mA) Rated Voltage	
4	Dielectric Strength	Body Insulation	No defects or abnormalities			diameter so the short-circuited approximately as shown in the between capa metal balls. (Courrent ≤ 50m	Approx. 2mm from the balls e figure, for 1 to 5s citor terminals and harge/Discharge A) Metal balls Test Voltage V,DC100V 250% of the rated voltage 500V 200% of the rated voltage	
5	Insulation Resistance	Between Terminals	More than 10000M or 500MΩ • μF (Whichever is smaller)	Rated voltage: DC25V, DC50V, DC100V More than 10000M or 500M\Omega \cdot \mu F (Whichever is smaller) Rated voltage:		DC voltage no in case of rate normal tempe charging.	resistance should be measured with a t exceeding the rated voltage (DC500V d vlotage: DC500V, DC630V, DC1kV) at rature and humidity and within 2min of arge current ≤ 50mA)	
6	6 Capacitance		Within the specified tolera	nin the specified tolerance			ce, Q/D.F. should be measured at 25°C	
7			30pF min.: Q ≧ 1000 30pF max.: Q ≧ 400+20C C: Nominal capacitance (pf	Char. X7R: 0.025 max.		at the frequency and voltage shown in the table. Nominal Cap. Frequency Voltage $\begin{array}{c cccc} C \leq 1000 pF & 1 \pm 0.1 MHz & AC0.5 \text{ to 5V (r.m.s.)} \\ \hline 10 \mu F \geq C > 1000 pF & 1 \pm 0.1 kHz & AC1 \pm 0.2 V \text{ (r.m.s.)} \\ \hline C > 10 \mu F & 120 \pm 24 Hz & AC0.5 \pm 0.1 V \text{ (r.m.s.)} \\ \hline \end{array}$		

Continued on the following page. 🖊

Continued from the preceding page. \searrow

				Specifi	cations			
No.	Ite	m	Tempera	ture Compensating Type	High Dielectric Constant Type		Test Method	
8	Capacitance Temperature Characteristics		Char. COG	Temperature Coefficient 25 to 125°C: 0±30ppm/°C -55 to 25°C: 0+30/-72ppm/°C 25 to 125°C: -750±120ppm/°C -55 to 25°C: -750+120/-347ppm/°C	Char. Capacitance Change X7R Within ± 15% X7S Within ± 22%	The capacitance change should be measured after min at each specified temperature stage. The temperature coefficient is determined using to capacitance measured in step 3 as a reference. We cycling the temperature sequentially from step 1 through 5 (-55 to +125°C) the capacitance should within the specified tolerance for the temperature coefficient and capacitance change. Step		
9	Tensile Strength Terminal Strength		Termina	tion not to be broken or	loosened	then let sit at room temperature for 24±2h. As in the figure, fix the capacitor body, apply the force gradually to each lead in the radial direction of the capacitor until reaching 10N and then keep the force applied for 10±1s.		
		Bending Strength	Termination not to be broken or loosened			and then bent 90° direction. Each wir	ould be subjected to a force of 2.5N at the point of egress in one e is then returned to the original 90° in the opposite direction at the er 2 to 3s.	
	Appearance		No defects or abnormalities			The capacitor should be firmly soldered to the		
	Vibration	Capacitance	Within t	he specified tolerance		supporting lead wire and vibrated at a frequency range of 10 to 55Hz, 1.5mm in total amplitude, with about a		
10	Vibration Resistance Q/D.F.		30pF ma	n.: Q ≧ 1000 ax.: Q ≧ 400+20C nal capacitance (pF)	Char. X7R: 0.025 max. Char. X7S: 0.125 max.	1 minute rate of vi	bration change from 10 to 55Hz Apply for a total of 6h, 2h each in 3	
11	.1 Solderability of Leads			re should be soldered wi n over 3/4 of the circum	th uniform coating on the axial ferential direction.	The terminal of a capacitor is dipped into a 25% ethano (JIS-K-8101) solution of rosin (JIS-K-5902) and then into molten solder for 2±0.5s. In both cases the depth of dipping is up to about 1.5 to 2mm from the terminal body. Temp. of solder: 245±5°C Lead Free Solder (Sn-3.0Ag-0.5Cu) 235±5°C H60A or H63A Eutectic Solder		
	_	Soldering Heat		asured and observed cha ations in the following ta	aracteristics should satisfy the able.	solder 1.5 to 2.0m	uld be immersed in the melted m from the root of terminal at	
	(Non-Preheat)	Appearance	No defe	cts or abnormalities		260±5°C for 10±1 Pre-treatment	S.	
12 ' 1		Capacitance Change		2.5% or ±0.25pF ever is larger)	Char. X7R: Within ±7.5% Char. X7S: Within ±10%	Capacitor should I then place at roor	be stored at 150+0/-10°C for 1h, n temperature for 24±2h	
1	Dielectric Strength (Between Terminals)		No defe	No defects		before initial measurement. (For Char. X7R, X7S) Post-treatment Capacitor should be stored for 24±2h at room condition*.		

^{* &}quot;room condition" Temperature: 15 to 35°C, Relative humidity: 45 to 75%, Atmosphere pressure: 86 to 106kPa

Continued on the following page. \nearrow

Continued from the preceding page.

No.	lto	m	Specifi	cations		Test Method		
NO.	Item		Temperature Compensating Type	High Dielectric Constant Type				
	Resistance to Soldering Heat	:	The measured and observed cha specifications in the following ta	•	60+0/-5s.			
	(On-Preheat)	Appearance	No defects or abnormalities			lead wires should be immersed to 2.0mm from the root of ter		
12		Capacitance Change	Within ±2.5% or ±0.25pF (Whichever is larger)	Char. X7R: Within ±7.5% Char. X7S: Within ±10%	260±5°C f	for 7.5+0/-1s. nent		
2			No defects			Capacitor should be stored at 150+0/-10°C for 1h, then place at room temperature for 24±2h before initial measurement. (For Char. X7R, X7S) Post-treatment Capacitor should be stored for 24±2h at room condition*.		
	Resistance to Soldering Heat	:	The measured and observed cha specifications in the following ta	•	Test cond Temperra	ition ture of iron-tip: 350±10°C		
	(Soldering	Appearance	No defects or abnormalities		Soldering time: 3.5±0.5s. Soldering position			
12	Iron Method)	Capacitance Change	Within ±2.5% or ±0.25pF (Whichever is larger)	Char. X7R: Within ±7.5% Char. X7S: Within ±10%	Straight L Crimp Lea	ead: 1.5 to 2.0mm from the road: 1.5 to 2.0mm from the end		
3		Dielectric Strength (Between Terminals)	No defects		Pre-treatment Capacitor should be stored at 150+0/-10°C for 1h, then place at room temperature for 24±2h before initial measurement. (For Char. X7R, X7S) Post-treatment Capacitor should be stored for 24±2h at room condition*.			
		Appearance	No defects or abnormalities					
		Capacitance Change	Within ±5% or ±0.5pF (whichever is larger)	Char. X7R, X7S: Within ±12.5%	The capacitor should be subjected to 5 temperatur cycles. Set for 24±2h at room temperature, then measure.			
13	Temperature	Q/D.F.	30pF min.: Q ≧ 350 10pF to 30pF: Q ≧ 275+5C/2 10pF max.: Q ≧ 200+10C C: Nominal capacitance (pF)	Char. X7R: 0.05 max. Char. X75: 0.2 max.	Step 1 2	Time (min) 30±3 3 max.		
	Cycle	Insulation Resistance	1000MΩ, 50MΩ • μF min. (which	never is smaller)	3 4	4 Room Temp. 3 max.		
		Dielectric Strength (Between Terminals)	No defects or abnormalities		Pretreatment (for high dielectric constant type) Perform a heat treatment at 150+0/-10°C for 1h, and then let sit at room temperature for 24±2h.			
		Appearance	No defects or abnormalities					
		Capacitance Change	Within ±5% or ±0.5pF (whichever is larger)	Char. X7R, X7S: Within ±12.5%		pacitor at 40±2°C and relative for 500 ^{±2} 4h.	humidity of	
14	Humidity (Steady State)	Q/D.F.	30pF min.: Q ≥ 350 10pF to 30pF: Q ≥ 275+5C/2 10pF max.: Q ≥ 200+10C C: Nominal capacitance (pF)	Char. X7R: 0.05 max. Char. X7S: 0.2 max.	measure. • Pretreati Perform a	nd set for 24±2h at room temp ment (for high dielectric consta heat treatment at 150+0/-10	ant type) °C for 1h, and	
		Insulation Resistance	1000MΩ, 50MΩ • μF min. (which	never is smaller)	then let Si	t at room temperature for 24±	ZN.	
		Appearance	No defects or abnormalities				40.000	
		Capacitance Change	Within ±5% or ±0.5pF (whichever is larger)	Char. X7R, X7S: Within ±12.5%	in 90 to 9!	Apply the rated voltage for 500 ^{±2} ⁴ _O h at 40±2°C and in 90 to 95% humidity. Remove and set for 24±2h at room temperature, the measure. (Charge/Discharge current ≤ 50mA) • Pretreatment (for high dielectric constant type) Perform a heat treatment at 150+0/-10°C for 1h, and		
15	Humidity Load	Q/D.F.	30pF min.: Q ≥ 200 30pF max.: Q ≥ 100+10C/3 C: Nominal capacitance (pF)	Char. X7R: 0.05 max. Char. X7S: 0.2 max.	measure. (Charge/D • Pretreati			
		Insulation Resistance	500MΩ or 25MΩ • μF min. (whic	hever is smaller)		t at room temperature for 24±		

 $^{^{\}star}$ "room condition" Temperature: 15 to 35°C, Relative humidity: 45 to 75%, Atmosphere pressure: 86 to 106kPa

Continued on the following page. 🖊

Continued from the preceding page. \searrow

NI-	ltem		Specific	cations		To at Mark		
No.	ite	m	Temperature Compensating Type	High Dielectric Constant Type	Test Method			
		Appearance	No defects or abnormalities		Apply voltage in Table for 1000 ⁺⁴⁸ _O h at the			
16		Capacitance Change	Within ±3% or ±0.3pF (whichever is larger)	Char. X7R, X7S: Within ±12.5%	maximum operating temperature±3°C. Remove and set for 24±2h at room temperature, then measure. (Charge/Discharge current ≦ 50mA)			
	High Temperature Load		(WillChever is targer)	WIGHII ±12.5 %	Temperature Compensating	Rated Voltage DC50V, DC100V, DC250V	Test Voltage 150% of the rated voltage	
		Q/D.F.	30pF min.: Q ≥ 350 10pF to 30pF: Q ≥ 275+5C/2 10pF max.: Q ≥ 200+10C	Char. X7R: 0.04 max. Char. X7S: 0.2 max.	High Dielectric Constant Type	DC630V, DC1kV DC25V, DC50V, DC100V, DC250V	120% of the rated voltage 150% of the rated voltage	
			C: Nominal capacitance (pF)			DC500V, DC630V DC1kV	120% of the rated voltage 110% of the rated voltage	
		Insulation Resistance	1000MΩ, 50MΩ • μF min. (which	Pretreatment (for high dielectric constant type) Appy test voltage for 1h at test temperature. Remove and set for 24±2h at room temperature.				
		Appearance	No defects or abnormalities		The capacitor should be fully immersed, unagitated, in			
17	Solvent Resistance	Marking	Legible	reagent at 20 to 25°C for 30±5s and then removed gently. Marking on the surface of the capacitor should immediately be visually examined. Reagent: Isopropyl alcohol				

Leaded MLCC for General Purpose

■ RDE Series Large Capacitance and High Allowable Ripple Current (DC250V-DC630V)

Features

- Higher capacitance with DC-Bias; approximately 40% higher than X7R under loaded rated voltage.
- 2. Meet LF (Lead Free) and HF (Halogen Free)
- 3. Allowable higher ripple current
- Reduces acoustic noise
 Approximately 15dB reduction in comparison to leaded X7R characteristics parts.

 Approximately 30dB reduction in comparison to SMD X7R characteristics part because the contact area is smaller than a SMD.

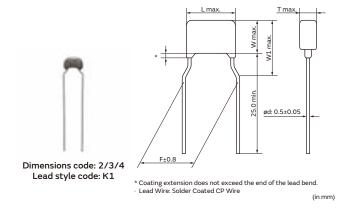
Applications

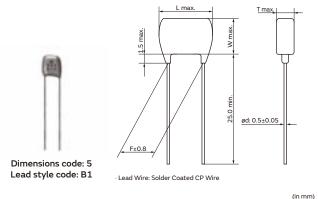
- 1. DC smoothing capacitor for LED bulb
- 2. PFC capacitor for general use SMPS
- 3. Replace Al-E capacitor for long-life equipment

Dimensions

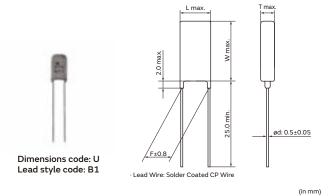
Dimensions and	DC Rated	Dimensions (mm)						
Lead Style Code	Voltage	L	L W W1 T			F	d	
2K1/2M1	250V/450V/630V	5.5	4.0	6.0		5.0	0.5	
3K1/3M1	250V/450V/630V	5.5	5.0	7.5	See	5.0	0.5	
4K1/4M1	250V/450V/630V	7.5	5.5	8.0	the individual product	5.0	0.5	
5B1/5E1	250V/450V/630V	7.5	7.5*	-	specification	5.0	0.5	
UB1/UE1	250V/450V/630V	7.7	12.5*	-		5.0	0.5	

^{*}DC630V: W+0.5mm





(...



Marking

Rated Voltage	DC250V	DC450V	DC630V		
Code Temp. Char.		X7T			
2	(F) 683 K47	() 153 K97	(P 153)		
3, 8	(M 334 K47	(M104) K97	(M 223 K77		
5, U	② 225 M47	(H) 474 K97	(M) 474 M77		
Temperature Characteristics	Marked with code (X7T char.: 7)				
Nominal Capacitance	Marked with 3 figures				
Capacitance Tolerance	Marked with code				
Rated Voltage	Marked with code (DC250V: 4, DC450V: 9, DC630V: 7)				
Manufacturer's Identification	Marked with M				

RDED72E333K2 H03 X7T (EIA) 250Vdc 47000pF±10% 5.5×4.0 3.15 5.0 K1 M1	Part Number	Temp. Char.	Rated Voltage	Capacitance	Dimensions LxW (mm)	Dimension T (mm)	Lead Space F (mm)	Lead Style Code Bulk	Lead Style Code Taping
RDED72E683K2	RDED72E333K2□□H03□	X7T (EIA)	250Vdc	33000pF±10%	5.5×4.0	3.15	5.0	K1	M1
RDED72E104K3	RDED72E473K2□□H03□	X7T (EIA)	250Vdc	47000pF±10%	5.5×4.0	3.15	5.0	K1	M1
RDED72E154K3	RDED72E683K2□□H03□	X7T (EIA)	250Vdc	68000pF±10%	5.5×4.0	3.15	5.0	K1	M1
RDED72E224K4	RDED72E104K3□□H03□	X7T (EIA)	250Vdc	0.10µF±10%	5.5×5.0	4.0	5.0	K1	M1
RDED72E334K4□H03□	RDED72E154K3□□H03□	X7T (EIA)	250Vdc	0.15µF±10%	5.5×5.0	4.0	5.0	K1	M1
RDED72E474KS□H03□ X7T (EIA) 250Vdc 0.47µF±10% 7.5×7.5 4.5 5.0 B1 E1 RDED72E684KS□H03□ X7T (EIA) 250Vdc 0.68µF±10% 7.5×7.5 4.5 5.0 B1 E1 RDED72E105KS□H03□ X7T (EIA) 250Vdc 1.0µF±10% 7.5×7.5 4.5 5.0 B1 E1 RDED72E105KS□H03□ X7T (EIA) 250Vdc 2.2µF±20% 7.7×12.5 4.5 5.0 B1 E1 RDED72W153K2□H03□ X7T (EIA) 450Vdc 10000P±10% 5.5×4.0 3.15 5.0 K1 M1 RDED72W153K2□H03□ X7T (EIA) 450Vdc 15000P±10% 5.5×4.0 3.15 5.0 K1 M1 RDED72W333K2□H03□ X7T (EIA) 450Vdc 33000P±10% 5.5×4.0 3.15 5.0 K1 M1 RDED72W473K2□H03□ X7T (EIA) 450Vdc 68000P±10% 5.5×4.0 3.15 5.0 K1 M1 RDED72W683K3□H03□ X7T (EIA) 450Vdc 0.10µF±10% <th>RDED72E224K4□□H03□</th> <th>X7T (EIA)</th> <th>250Vdc</th> <th>0.22µF±10%</th> <th>7.5×5.5</th> <th>4.0</th> <th>5.0</th> <th>K1</th> <th>M1</th>	RDED72E224K4□□H03□	X7T (EIA)	250Vdc	0.22µF±10%	7.5×5.5	4.0	5.0	K1	M1
RDED72E684KS□H03□ X7T (EIA) 250Vdc 0.68μ±10% 7.5×7.5 4.5 5.0 B1 E1 RDED72E105K5□H03□ X7T (EIA) 250Vdc 1.0μ±10% 7.5×7.5 4.5 5.0 B1 E1 RDED72E225MU□H03□ X7T (EIA) 250Vdc 2.2μ±20% 7.7×12.5 4.5 5.0 B1 E1 RDED72W103K2□H03□ X7T (EIA) 450Vdc 10000p±10% 5.5×4.0 3.15 5.0 K1 M1 RDED72W153K2□H03□ X7T (EIA) 450Vdc 15000p±10% 5.5×4.0 3.15 5.0 K1 M1 RDED72W333K2□H03□ X7T (EIA) 450Vdc 22000p±10% 5.5×4.0 3.15 5.0 K1 M1 RDED72W333K2□H03□ X7T (EIA) 450Vdc 23000p±10% 5.5×4.0 3.15 5.0 K1 M1 RDED72W473K2□H03□ X7T (EIA) 450Vdc 68000p±10% 5.5×5.0 4.0 5.0 K1 M1 RDED72W154K4□H03□ X7T (EIA) 450Vdc 0.19μ±10%	RDED72E334K4□□H03□	X7T (EIA)	250Vdc	0.33µF±10%	7.5×5.5	4.0	5.0	K1	M1
RDED72E105K5□H03□ X7T (EIA) 250Vdc 1.0µF±10% 7.5×7.5 4.5 5.0 B1 E1 RDED72E225MU□H03□ X7T (EIA) 250Vdc 2.2µF±20% 7.7×12.5 4.5 5.0 B1 E1 RDED72W103K2□H03□ X7T (EIA) 450Vdc 10000pF±10% 5.5×4.0 3.15 5.0 K1 M1 RDED72W153K2□H03□ X7T (EIA) 450Vdc 15000pF±10% 5.5×4.0 3.15 5.0 K1 M1 RDED72W233K2□H03□ X7T (EIA) 450Vdc 2000pF±10% 5.5×4.0 3.15 5.0 K1 M1 RDED72W333K2□H03□ X7T (EIA) 450Vdc 23000pF±10% 5.5×4.0 3.15 5.0 K1 M1 RDED72W473K2□H03□ X7T (EIA) 450Vdc 47000pF±10% 5.5×4.0 3.15 5.0 K1 M1 RDED72W104K3□H03□ X7T (EIA) 450Vdc 0.10µF±10% 5.5×5.0 4.0 5.0 K1 M1 RDED72W154K4□H03□ X7T (EIA) 450Vdc 0.15µF±1	RDED72E474K5□□H03□	X7T (EIA)	250Vdc	0.47µF±10%	7.5×7.5	4.5	5.0	B1	E1
RDED72E225MU□H03□ X7T (EIA) 250Vdc 2.2µF±20% 7.7×12.5 4.5 5.0 B1 E1 RDED72W103K2□H03□ X7T (EIA) 450Vdc 10000pF±10% 5.5×4.0 3.15 5.0 K1 M1 RDED72W153K2□H03□ X7T (EIA) 450Vdc 15000pF±10% 5.5×4.0 3.15 5.0 K1 M1 RDED72W233K2□H03□ X7T (EIA) 450Vdc 22000pF±10% 5.5×4.0 3.15 5.0 K1 M1 RDED72W333K2□H03□ X7T (EIA) 450Vdc 23000pF±10% 5.5×4.0 3.15 5.0 K1 M1 RDED72W473K2□H03□ X7T (EIA) 450Vdc 47000pF±10% 5.5×4.0 3.15 5.0 K1 M1 RDED72W104K3□H03□ X7T (EIA) 450Vdc 68000pF±10% 5.5×5.0 4.0 5.0 K1 M1 RDED72W154K4□H03□ X7T (EIA) 450Vdc 0.10µF±10% 7.5×5.5 4.0 5.0 K1 M1 RDED72W224K5□H03□ X7T (EIA) 450Vdc 0.2µF	RDED72E684K5□□H03□	X7T (EIA)	250Vdc	0.68µF±10%	7.5×7.5	4.5	5.0	B1	E1
RDED72W103K2□H03□ X7T (EIA) 450Vdc 10000pF±10% 5.5×4.0 3.15 5.0 K1 M1 RDED72W153K2□H03□ X7T (EIA) 450Vdc 15000pF±10% 5.5×4.0 3.15 5.0 K1 M1 RDED72W223K2□H03□ X7T (EIA) 450Vdc 22000pF±10% 5.5×4.0 3.15 5.0 K1 M1 RDED72W333K2□H03□ X7T (EIA) 450Vdc 33000pF±10% 5.5×4.0 3.15 5.0 K1 M1 RDED72W473K2□H03□ X7T (EIA) 450Vdc 47000pF±10% 5.5×4.0 3.15 5.0 K1 M1 RDED72W683K3□H03□ X7T (EIA) 450Vdc 68000pF±10% 5.5×5.0 4.0 5.0 K1 M1 RDED72W104K3□H03□ X7T (EIA) 450Vdc 0.10pF±10% 5.5×5.0 4.0 5.0 K1 M1 RDED72W154K4□H03□ X7T (EIA) 450Vdc 0.22pF±10% 7.5×7.5 4.5 5.0 B1 E1 RDED72W3334K5□H03□ X7T (EIA) 450Vdc 0.33	RDED72E105K5□□H03□	X7T (EIA)	250Vdc	1.0µF±10%	7.5×7.5	4.5	5.0	B1	E1
RDED72W153K2□H03□ X7T (EIA) 450Vdc 15000pF±10% 5.5×4.0 3.15 5.0 K1 M1 RDED72W223K2□H03□ X7T (EIA) 450Vdc 22000pF±10% 5.5×4.0 3.15 5.0 K1 M1 RDED72W333K2□H03□ X7T (EIA) 450Vdc 23000pF±10% 5.5×4.0 3.15 5.0 K1 M1 RDED72W473K2□H03□ X7T (EIA) 450Vdc 47000pF±10% 5.5×4.0 3.15 5.0 K1 M1 RDED72W663K3□H03□ X7T (EIA) 450Vdc 68000pF±10% 5.5×5.0 4.0 5.0 K1 M1 RDED72W104K3□H03□ X7T (EIA) 450Vdc 0.10µF±10% 5.5×5.0 4.0 5.0 K1 M1 RDED72W154K4□H03□ X7T (EIA) 450Vdc 0.15µF±10% 7.5×5.5 4.0 5.0 K1 M1 RDED72W224K5□H03□ X7T (EIA) 450Vdc 0.2µF±10% 7.5×7.5 4.5 5.0 B1 E1 RDED72W334K5□H03□ X7T (EIA) 450Vdc 0.56µF±1	RDED72E225MU□□H03□	X7T (EIA)	250Vdc	2.2µF±20%	7.7×12.5	4.5	5.0	B1	E1
RDED72W223K2□H03□ X7T (EIA) 450Vdc 22000pF±10% 5.5×4.0 3.15 5.0 K1 M1 RDED72W333K2□H03□ X7T (EIA) 450Vdc 33000pF±10% 5.5×4.0 3.15 5.0 K1 M1 RDED72W473K2□H03□ X7T (EIA) 450Vdc 47000pF±10% 5.5×4.0 3.15 5.0 K1 M1 RDED72W683K3□H03□ X7T (EIA) 450Vdc 68000pF±10% 5.5×5.0 4.0 5.0 K1 M1 RDED72W104K3□H03□ X7T (EIA) 450Vdc 0.10µF±10% 5.5×5.0 4.0 5.0 K1 M1 RDED72W154K4□H03□ X7T (EIA) 450Vdc 0.15µF±10% 7.5×5.5 4.0 5.0 K1 M1 RDED72W24K5□H03□ X7T (EIA) 450Vdc 0.22µF±10% 7.5×7.5 4.5 5.0 B1 E1 RDED72W3474K5□H03□ X7T (EIA) 450Vdc 0.47µF±10% 7.5×7.5 4.5 5.0 B1 E1 RDED72W105M0□H03□ X7T (EIA) 450Vdc 1.0µF±20%	RDED72W103K2□□H03□	X7T (EIA)	450Vdc	10000pF±10%	5.5×4.0	3.15	5.0	K1	M1
RDED72W333K2□H03□ X7T (EIA) 450Vdc 33000pF±10% 5.5×4.0 3.15 5.0 K1 M1 RDED72W473K2□H03□ X7T (EIA) 450Vdc 47000pF±10% 5.5×4.0 3.15 5.0 K1 M1 RDED72W683K3□H03□ X7T (EIA) 450Vdc 68000pF±10% 5.5×5.0 4.0 5.0 K1 M1 RDED72W104K3□H03□ X7T (EIA) 450Vdc 0.15µF±10% 5.5×5.0 4.0 5.0 K1 M1 RDED72W154K4□H03□ X7T (EIA) 450Vdc 0.15µF±10% 7.5×7.5 4.0 5.0 K1 M1 RDED72W224K5□H03□ X7T (EIA) 450Vdc 0.22µF±10% 7.5×7.5 4.5 5.0 B1 E1 RDED72W334K5□H03□ X7T (EIA) 450Vdc 0.3µF±10% 7.5×7.5 4.5 5.0 B1 E1 RDED72W474K5□H03□ X7T (EIA) 450Vdc 0.56µF±10% 7.5×7.5 4.5 5.0 B1 E1 RDED72W105M0□H03□ X7T (EIA) 450Vdc 1.0µF±20% </th <th>RDED72W153K2□□H03□</th> <th>X7T (EIA)</th> <th>450Vdc</th> <th>15000pF±10%</th> <th>5.5×4.0</th> <th>3.15</th> <th>5.0</th> <th>K1</th> <th>M1</th>	RDED72W153K2□□H03□	X7T (EIA)	450Vdc	15000pF±10%	5.5×4.0	3.15	5.0	K1	M1
RDED72W473K2□H03□ X7T (EIA) 450Vdc 47000pF±10% 5.5×4.0 3.15 5.0 K1 M1 RDED72W683K3□H03□ X7T (EIA) 450Vdc 68000pF±10% 5.5×5.0 4.0 5.0 K1 M1 RDED72W104K3□H03□ X7T (EIA) 450Vdc 0.10µF±10% 5.5×5.0 4.0 5.0 K1 M1 RDED72W154K4□H03□ X7T (EIA) 450Vdc 0.15µF±10% 7.5×5.5 4.0 5.0 K1 M1 RDED72W224K5□H03□ X7T (EIA) 450Vdc 0.22µF±10% 7.5×7.5 4.5 5.0 B1 E1 RDED72W334K5□H03□ X7T (EIA) 450Vdc 0.3µF±10% 7.5×7.5 4.5 5.0 B1 E1 RDED72W474K5□H03□ X7T (EIA) 450Vdc 0.56µF±10% 7.5×7.5 4.5 5.0 B1 E1 RDED72W105MU□H03□ X7T (EIA) 450Vdc 1.0µF±20% 7.7×12.5 4.5 5.0 B1 E1 RDED72J103K2□H03□ X7T (EIA) 450Vdc 1.0µF±20%	RDED72W223K2□□H03□	X7T (EIA)	450Vdc	22000pF±10%	5.5×4.0	3.15	5.0	K1	M1
RDED72W683K3□H03□ X7T (EIA) 450Vdc 68000pF±10% 5.5×5.0 4.0 5.0 K1 M1 RDED72W104K3□H03□ X7T (EIA) 450Vdc 0.10µF±10% 5.5×5.0 4.0 5.0 K1 M1 RDED72W154K4□H03□ X7T (EIA) 450Vdc 0.15µF±10% 7.5×5.5 4.0 5.0 K1 M1 RDED72W224K5□H03□ X7T (EIA) 450Vdc 0.22µF±10% 7.5×7.5 4.5 5.0 B1 E1 RDED72W334K5□H03□ X7T (EIA) 450Vdc 0.47µF±10% 7.5×7.5 4.5 5.0 B1 E1 RDED72W474K5□H03□ X7T (EIA) 450Vdc 0.56µF±10% 7.5×7.5 4.5 5.0 B1 E1 RDED72W564K5□H03□ X7T (EIA) 450Vdc 0.56µF±10% 7.5×7.5 4.5 5.0 B1 E1 RDED72W105MU□H03□ X7T (EIA) 450Vdc 1.0µF±20% 7.7×12.5 4.5 5.0 B1 E1 RDED72J103K2□H03□ X7T (EIA) 630Vdc 15000pF±10% <th>RDED72W333K2□□H03□</th> <th>X7T (EIA)</th> <th>450Vdc</th> <th>33000pF±10%</th> <th>5.5×4.0</th> <th>3.15</th> <th>5.0</th> <th>K1</th> <th>M1</th>	RDED72W333K2□□H03□	X7T (EIA)	450Vdc	33000pF±10%	5.5×4.0	3.15	5.0	K1	M1
RDED72W104K3□H03□ X7T (EIA) 450Vdc 0.10µF±10% 5.5×5.0 4.0 5.0 K1 M1 RDED72W154K4□H03□ X7T (EIA) 450Vdc 0.15µF±10% 7.5×5.5 4.0 5.0 K1 M1 RDED72W224K5□H03□ X7T (EIA) 450Vdc 0.22µF±10% 7.5×7.5 4.5 5.0 B1 E1 RDED72W334K5□H03□ X7T (EIA) 450Vdc 0.3µF±10% 7.5×7.5 4.5 5.0 B1 E1 RDED72W474K5□H03□ X7T (EIA) 450Vdc 0.56µF±10% 7.5×7.5 4.5 5.0 B1 E1 RDED72W564K5□H03□ X7T (EIA) 450Vdc 1.0µF±20% 7.7×12.5 4.5 5.0 B1 E1 RDED72W125MU□H03□ X7T (EIA) 450Vdc 1.2µF±20% 7.7×12.5 4.5 5.0 B1 E1 RDED72J103K2□H03□ X7T (EIA) 630Vdc 15000pF±10% 5.5×4.0 3.15 5.0 K1 M1 RDED72J2333K3□H03□ X7T (EIA) 630Vdc 22000pF±10% </th <th>RDED72W473K2□□H03□</th> <th>X7T (EIA)</th> <th>450Vdc</th> <th>47000pF±10%</th> <th>5.5×4.0</th> <th>3.15</th> <th>5.0</th> <th>K1</th> <th>M1</th>	RDED72W473K2□□H03□	X7T (EIA)	450Vdc	47000pF±10%	5.5×4.0	3.15	5.0	K1	M1
RDED72W154K4□H03□ X7T (EIA) 450Vdc 0.15μF±10% 7.5×5.5 4.0 5.0 K1 M1 RDED72W224K5□H03□ X7T (EIA) 450Vdc 0.22μF±10% 7.5×7.5 4.5 5.0 B1 E1 RDED72W334K5□H03□ X7T (EIA) 450Vdc 0.33μF±10% 7.5×7.5 4.5 5.0 B1 E1 RDED72W474K5□H03□ X7T (EIA) 450Vdc 0.47μF±10% 7.5×7.5 4.5 5.0 B1 E1 RDED72W564K5□H03□ X7T (EIA) 450Vdc 0.56μF±10% 7.5×7.5 4.5 5.0 B1 E1 RDED72W105MU□H03□ X7T (EIA) 450Vdc 1.0μF±20% 7.7×12.5 4.5 5.0 B1 E1 RDED72W125MU□H03□ X7T (EIA) 450Vdc 1.0μF±20% 7.7×12.5 4.5 5.0 B1 E1 RDED72J103K2□H03□ X7T (EIA) 630Vdc 15000pF±10% 5.5×4.0 3.15 5.0 K1 M1 RDED72J333K3□H03□ X7T (EIA) 630Vdc 2000pF±10% <th>RDED72W683K3□□H03□</th> <th>X7T (EIA)</th> <th>450Vdc</th> <th>68000pF±10%</th> <th>5.5×5.0</th> <th>4.0</th> <th>5.0</th> <th>K1</th> <th>M1</th>	RDED72W683K3□□H03□	X7T (EIA)	450Vdc	68000pF±10%	5.5×5.0	4.0	5.0	K1	M1
RDED72W224K5 HO3 X7T (EIA) 450Vdc 0.22μF±10% 7.5×7.5 4.5 5.0 B1 E1 RDED72W334K5 HO3 X7T (EIA) 450Vdc 0.33μF±10% 7.5×7.5 4.5 5.0 B1 E1 RDED72W474K5 HO3 X7T (EIA) 450Vdc 0.47μF±10% 7.5×7.5 4.5 5.0 B1 E1 RDED72W564K5 HO3 X7T (EIA) 450Vdc 0.56μF±10% 7.5×7.5 4.5 5.0 B1 E1 RDED72W105MU HO3 X7T (EIA) 450Vdc 1.0μF±20% 7.7×12.5 4.5 5.0 B1 E1 RDED72W125MU HO3 X7T (EIA) 450Vdc 1.0μF±20% 7.7×12.5 4.5 5.0 B1 E1 RDED72J103K2 HO3 X7T (EIA) 630Vdc 15000pF±10% 5.5×4.0 3.15 5.0 K1 M1 RDED72J233K3 HO3 X7T (EIA) 630Vdc 22000pF±10% 5.5×5.0 4.0 5.0 K1 M1	RDED72W104K3□□H03□	X7T (EIA)	450Vdc	0.10µF±10%	5.5×5.0	4.0	5.0	K1	M1
RDED72W334K5□H03□ X7T (EIA) 450Vdc 0.33μF±10% 7.5×7.5 4.5 5.0 B1 E1 RDED72W474K5□H03□ X7T (EIA) 450Vdc 0.47μF±10% 7.5×7.5 4.5 5.0 B1 E1 RDED72W564K5□H03□ X7T (EIA) 450Vdc 0.56μF±10% 7.5×7.5 4.5 5.0 B1 E1 RDED72W105MU□H03□ X7T (EIA) 450Vdc 1.0μF±20% 7.7×12.5 4.5 5.0 B1 E1 RDED72W125MU□H03□ X7T (EIA) 450Vdc 1.2μF±20% 7.7×12.5 4.5 5.0 B1 E1 RDED72J103K2□H03□ X7T (EIA) 630Vdc 15000pF±10% 5.5×4.0 3.15 5.0 K1 M1 RDED72J2333K3□H03□ X7T (EIA) 630Vdc 22000pF±10% 5.5×5.0 4.0 5.0 K1 M1 RDED72J473K3□H03□ X7T (EIA) 630Vdc 47000pF±10% 5.5×5.0 4.0 5.0 K1 M1 RDED72J683K4□H03□ X7T (EIA) 630Vdc 68000pF±10	RDED72W154K4□□H03□	X7T (EIA)	450Vdc	0.15µF±10%	7.5×5.5	4.0	5.0	K1	M1
RDED72W474K5 HO3 X7T (EIA) 450Vdc 0.47μF±10% 7.5×7.5 4.5 5.0 B1 E1 RDED72W564K5 HO3 X7T (EIA) 450Vdc 0.56μF±10% 7.5×7.5 4.5 5.0 B1 E1 RDED72W105MU HO3 X7T (EIA) 450Vdc 1.0μF±20% 7.7×12.5 4.5 5.0 B1 E1 RDED72W125MU HO3 X7T (EIA) 450Vdc 1.2μF±20% 7.7×12.5 4.5 5.0 B1 E1 RDED72J103K2 HO3 X7T (EIA) 630Vdc 10000pF±10% 5.5×4.0 3.15 5.0 K1 M1 RDED72J153K2 HO3 X7T (EIA) 630Vdc 22000pF±10% 5.5×5.0 4.0 5.0 K1 M1 RDED72J333K3 HO3 X7T (EIA) 630Vdc 33000pF±10% 5.5×5.0 4.0 5.0 K1 M1 RDED72J473K3 HO3 X7T (EIA) 630Vdc 630Vdc 68000pF±10% 5.5×5.0 4.0 5.0 K1 </th <th>RDED72W224K5□□H03□</th> <th>X7T (EIA)</th> <th>450Vdc</th> <th>0.22µF±10%</th> <th>7.5×7.5</th> <th>4.5</th> <th>5.0</th> <th>B1</th> <th>E1</th>	RDED72W224K5□□H03□	X7T (EIA)	450Vdc	0.22µF±10%	7.5×7.5	4.5	5.0	B1	E1
RDED72W564K5 □ H03 □ X7T (EIA) 450Vdc 0.56μF±10% 7.5×7.5 4.5 5.0 B1 E1 RDED72W105MU □ H03 □ X7T (EIA) 450Vdc 1.0μF±20% 7.7×12.5 4.5 5.0 B1 E1 RDED72W125MU □ H03 □ X7T (EIA) 450Vdc 1.2μF±20% 7.7×12.5 4.5 5.0 B1 E1 RDED72J103K2 □ H03 □ X7T (EIA) 630Vdc 10000pF±10% 5.5×4.0 3.15 5.0 K1 M1 RDED72J123K2 □ H03 □ X7T (EIA) 630Vdc 15000pF±10% 5.5×5.0 4.0 5.0 K1 M1 RDED72J333K3 □ H03 □ X7T (EIA) 630Vdc 33000pF±10% 5.5×5.0 4.0 5.0 K1 M1 RDED72J473K3 □ H03 □ X7T (EIA) 630Vdc 47000pF±10% 5.5×5.0 4.0 5.0 K1 M1 RDED72J683K4 □ H03 □ X7T (EIA) 630Vdc 68000pF±10% 7.5×5.5 4.0 5.0 K1 M1	RDED72W334K5□□H03□	X7T (EIA)	450Vdc	0.33µF±10%	7.5×7.5	4.5	5.0	B1	E1
RDED72W105MU□□H03□ X7T (EIA) 450Vdc 1.0μF±20% 7.7×12.5 4.5 5.0 B1 E1 RDED72W125MU□□H03□ X7T (EIA) 450Vdc 1.2μF±20% 7.7×12.5 4.5 5.0 B1 E1 RDED72J103K2□□H03□ X7T (EIA) 630Vdc 10000pF±10% 5.5×4.0 3.15 5.0 K1 M1 RDED72J153K2□□H03□ X7T (EIA) 630Vdc 15000pF±10% 5.5×4.0 3.15 5.0 K1 M1 RDED72J223K3□□H03□ X7T (EIA) 630Vdc 22000pF±10% 5.5×5.0 4.0 5.0 K1 M1 RDED72J473K3□□H03□ X7T (EIA) 630Vdc 47000pF±10% 5.5×5.0 4.0 5.0 K1 M1 RDED72J683K4□□H03□ X7T (EIA) 630Vdc 68000pF±10% 7.5×5.5 4.0 5.0 K1 M1	RDED72W474K5□□H03□	X7T (EIA)	450Vdc	0.47µF±10%	7.5×7.5	4.5	5.0	B1	E1
RDED72W125MU□□H03□ X7T (EIA) 450Vdc 1.2μF±20% 7.7×12.5 4.5 5.0 B1 E1 RDED72J103K2□□H03□ X7T (EIA) 630Vdc 10000pF±10% 5.5×4.0 3.15 5.0 K1 M1 RDED72J153K2□□H03□ X7T (EIA) 630Vdc 15000pF±10% 5.5×4.0 3.15 5.0 K1 M1 RDED72J223K3□□H03□ X7T (EIA) 630Vdc 22000pF±10% 5.5×5.0 4.0 5.0 K1 M1 RDED72J333K3□□H03□ X7T (EIA) 630Vdc 47000pF±10% 5.5×5.0 4.0 5.0 K1 M1 RDED72J473K3□□H03□ X7T (EIA) 630Vdc 68000pF±10% 5.5×5.5 4.0 5.0 K1 M1 RDED72J683K4□□H03□ X7T (EIA) 630Vdc 68000pF±10% 7.5×5.5 4.0 5.0 K1 M1	RDED72W564K5□□H03□	X7T (EIA)	450Vdc	0.56µF±10%	7.5×7.5	4.5	5.0	B1	E1
RDED72J103K2 H03 X7T (EIA) 630Vdc 10000pF±10% 5.5×4.0 3.15 5.0 K1 M1 RDED72J153K2 H03 X7T (EIA) 630Vdc 15000pF±10% 5.5×4.0 3.15 5.0 K1 M1 RDED72J223K3 H03 X7T (EIA) 630Vdc 22000pF±10% 5.5×5.0 4.0 5.0 K1 M1 RDED72J333K3 H03 X7T (EIA) 630Vdc 47000pF±10% 5.5×5.0 4.0 5.0 K1 M1 RDED72J473K3 H03 X7T (EIA) 630Vdc 68000pF±10% 5.5×5.0 4.0 5.0 K1 M1 RDED72J683K4 H03 X7T (EIA) 630Vdc 68000pF±10% 7.5×5.5 4.0 5.0 K1 M1	RDED72W105MU□□H03□	X7T (EIA)	450Vdc	1.0µF±20%	7.7×12.5	4.5	5.0	B1	E1
RDED72J153K2 HO3 X7T (EIA) 630Vdc 15000pF±10% 5.5×4.0 3.15 5.0 K1 M1 RDED72J223K3 HO3 X7T (EIA) 630Vdc 22000pF±10% 5.5×5.0 4.0 5.0 K1 M1 RDED72J333K3 HO3 X7T (EIA) 630Vdc 33000pF±10% 5.5×5.0 4.0 5.0 K1 M1 RDED72J473K3 HO3 X7T (EIA) 630Vdc 47000pF±10% 5.5×5.0 4.0 5.0 K1 M1 RDED72J683K4 HO3 X7T (EIA) 630Vdc 68000pF±10% 7.5×5.5 4.0 5.0 K1 M1	RDED72W125MU□□H03□	X7T (EIA)	450Vdc	1.2µF±20%	7.7×12.5	4.5	5.0	B1	E1
RDED72J223K3 HO3 X7T (EIA) 630Vdc 22000pF±10% 5.5×5.0 4.0 5.0 K1 M1 RDED72J333K3 HO3 X7T (EIA) 630Vdc 33000pF±10% 5.5×5.0 4.0 5.0 K1 M1 RDED72J473K3 HO3 X7T (EIA) 630Vdc 47000pF±10% 5.5×5.0 4.0 5.0 K1 M1 RDED72J683K4 HO3 X7T (EIA) 630Vdc 68000pF±10% 7.5×5.5 4.0 5.0 K1 M1	RDED72J103K2□□H03□	X7T (EIA)	630Vdc	10000pF±10%	5.5×4.0	3.15	5.0	K1	M1
RDED72J333K3 HO3 X7T (EIA) 630Vdc 33000pF±10% 5.5×5.0 4.0 5.0 K1 M1 RDED72J473K3 HO3 X7T (EIA) 630Vdc 47000pF±10% 5.5×5.0 4.0 5.0 K1 M1 RDED72J683K4 HO3 X7T (EIA) 630Vdc 68000pF±10% 7.5×5.5 4.0 5.0 K1 M1	RDED72J153K2□□H03□	X7T (EIA)	630Vdc	15000pF±10%	5.5×4.0	3.15	5.0	K1	M1
RDED72J473K3□H03□ X7T (EIA) 630Vdc 47000pF±10% 5.5×5.0 4.0 5.0 K1 M1 RDED72J683K4□H03□ X7T (EIA) 630Vdc 68000pF±10% 7.5×5.5 4.0 5.0 K1 M1	RDED72J223K3□□H03□	X7T (EIA)	630Vdc	22000pF±10%	5.5×5.0	4.0	5.0	K1	M1
RDED72J683K4□□H03□ X7T (EIA) 630Vdc 68000pF±10% 7.5×5.5 4.0 5.0 K1 M1	RDED72J333K3□□H03□	X7T (EIA)	630Vdc	33000pF±10%	5.5×5.0	4.0	5.0	K1	M1
	RDED72J473K3□□H03□	X7T (EIA)	630Vdc	47000pF±10%	5.5×5.0	4.0	5.0	K1	M1
RDED72J104K5 □H03 X7T (EIA) 630Vdc 0.10μF±10% 7.5×8.0 4.5 5.0 B1 E1	RDED72J683K4□□H03□	X7T (EIA)	630Vdc	68000pF±10%	7.5×5.5	4.0	5.0	K1	M1
	RDED72J104K5□□H03□	X7T (EIA)	630Vdc	0.10µF±10%	7.5×8.0	4.5	5.0	B1	E1
RDED72J154K5□□H03□ X7T (EIA) 630Vdc 0.15μF±10% 7.5×8.0 4.5 5.0 B1 E1	RDED72J154K5□□H03□	X7T (EIA)	630Vdc	0.15µF±10%	7.5×8.0	4.5	5.0	B1	E1
RDED72J224K5 HO3 X7T (EIA) 630Vdc 0.22μF±10% 7.5×8.0 4.5 5.0 B1 E1	RDED72J224K5□□H03□	X7T (EIA)	630Vdc	0.22µF±10%	7.5×8.0	4.5	5.0	B1	E1

1 01	0							
Part Number	Temp. Char.	Rated Voltage	Capacitance	Dimensions LxW (mm)	Dimension T (mm)	Lead Space F (mm)	Lead Style Code Bulk	Lead Style Code Taping
RDED72J274K5□□H03□	X7T (EIA)	630Vdc	0.27µF±10%	7.5×8.0	4.5	5.0	B1	E1
RDED72J474MU□□H03□	X7T (EIA)	630Vdc	0.47µF±20%	7.7×13.0	4.5	5.0	B1	E1
RDED72J564MU□□H03□	X7T (EIA)	630Vdc	0.56µF±20%	7.7×13.0	4.5	5.0	B1	E1

Two blank columns are filled with the lead style code. Please refer to the 3 columns on the right for the appropriate code. The last blank column is filled with the packaging code. (B: bulk, A: ammo pack)

No.	lte	m	Specifications	Test Method		
1	Operating Ten Range	nperature	-55 to +125°C	-		
2	Appearance		No defects or abnormalities	Visual inspection		
3	Dimension and	d Marking	See previous pages	Visual inspection, Vernier Caliper		
		Between Terminals	No defects or abnormalities	The capacitor should not be damaged when voltage in Table is applied between the terminations for 1 to 5s. (Charge/Discharge current ≤ 50mA) Rated Voltage Test Voltage DC250V 200% of the rated voltage DC450V 150% of the rated voltage DC630V 120% of the rated voltage		
4	Dielectric Strength	Body Insulation	No defects or abnormalities	The capacitor is placed in a container with metal balls of 1mm diameter so that each terminal, short-circuit, is kept approximately 2mm from the balls as shown in the figure, and 200% of the rated DC voltage is impressed for 1 to 5s between capacitor terminals and metal balls. (Charge/Discharge current ≤ 50mA)		
5	Insulation Between Terminals		More than $10000M\Omega$ or $100M\Omega$ • μF , Whichever is smaller	The insulation resistance should be measured with DC500V (DC250V in case of rated voltage: DC250V,DC450V) at normal temperature and humidity and within 2min of charging. (Charge/Discharge current ≤ 50mA)		
6	Capacitance		Within the specified tolerance	The capacitance/D.F. should be measured at the		
7	Dissipation Factor (D.F.)		0.01 max.	frequency of 1±0.1kHz and a voltage of AC1±0.2V(r.m.s.).		
				The capacitance change should be measured after 5min at each specified temperature stage.		
8	Capacitance Temperature Characteristic	s	Within +22/-33%	Step Temperature (°C) 1 25±2 2 -55±3 3 25±2 4 125±3 5 25±2		
9	Terminal Strength	Tensile Strength	Termination not to be broken or loosened	As in the figure, fix the capacitor body, apply the force gradually to each lead in the radial direction of the capacitor until reaching 10N and then keep the force applied for 10±1s.		
		Bending Strength Termination not to be broken or loosened		Each lead wire should be subjected to a force of 2.5N and then bent 90° at the point of egress in one direction. Each wire is then returned to the original position and bent 90° in the opposite direction at the rate of one bend per 2 to 3s.		
		Appearance	No defects or abnormalities	The capacitor should be firmly soldered to the		
10	Vibration	Capacitance	Within the specified tolerance	supporting lead wire and vibrated at a frequency range of 10 to 55Hz, 1.5mm in total amplitude, with about a		
10	Vibration Resistance D.F.		0.01 max.	1 minute rate of vibration change from 10 to 55Hz and back to 10Hz. Apply for a total of 6h, 2h each in 3 mutually perpendicular directions.		

Continued on the following page. ${\cal J}$

Continued from the preceding page.

No.	Iter	m	Specifications	Test Method				
11	Solderability o	f Leads	Lead wire should be soldered with uniform coating on the axial direction over 3/4 of the circumferential direction.	The terminal of a capacitor is dipped into a solution of ethanol (JIS-K-8101) and rosin (JIS-K-5902) (25% rosir in weight proportion) and then into molten solder (JIS-Z-3282) for 2±0.5s. In both cases the depth of dipping is up to about 1.5 to 2mm from the terminal body. Temp. of solder: 245±5°C Lead Free Solder (Sn-3.0Ag-0.5Cu) 235±5°C H60A or H63A Eutectic Solder				
	Resistance to Soldering Heat (Non-Preheat) Appearance		The measured and observed characteristics should satisfy the specifications in the following table. No defects or abnormalities	The lead wires should be immersed in the melted solder 1.5 to 2.0mm from the root of terminal at 260+5°C for 10+1s.				
12		Capacitance Change	Within ±10%	Pre-treatment Capacitor should be stored at 150+0/-10°C for 1h, then place at room temperature for 24±2h before				
1		Dielectric Strength (Between Terminals)	No defects	initial measurement. Post-treatment Capacitor should be stored for 24±2h at room condition*.				
	Resistance to Soldering Heat	:	The measured and observed characteristics should satisfy the specifications in the following table.	First the capacitor should be stored at 120+0/-5°C for 60+0/-5s.				
12	(On-Preheat)	Appearance Capacitance	No defects or abnormalities	Then, the lead wires should be immersed in the melted solder 1.5 to 2.0mm from the root of terminal at 260±5°C for 7.5+0/-1s.				
12		Dielectric Strength (Between Terminals)	Within ±10% No defects	Pre-treatment Capacitor should be stored at 150+0/-10°C for 1h, then place at room temperature for 24±2h before initial measurement. Post-treatment Capacitor should be stored for 24±2h at room condition*.				
	Resistance to Soldering Heat		The measured and observed characteristics should satisfy the specifications in the following table.	Test condition Temperrature of iron-tip: 350±10°C				
	(Soldering Iron Method)	Appearance	No defects or abnormalities	Soldering time: 3.5±0.5s. Soldering position				
12		Capacitance Change	Within ±10%	Straight Lead: 1.5 to 2.0mm from the root of terminal. Crimp Lead: 1.5 to 2.0mm from the end of lead bend.				
3		Dielectric Strength (Between Terminals)	No defects	Pre-treatment Capacitor should be stored at 150+0/-10°C for 1h, then place at room temperature for 24±2h before initial measurement. Post-treatment Capacitor should be stored for 24±2h at room condition*.				
	Appearance		No defects or abnormalities	The capacitor should be subjected to 5 temperature				
		Capacitance Change	Within ±12.5%	cycles. Step Temperature (°C) Time (min)				
		D.F.	0.01 max.	1 -55±3 30±3 2 Room Temp. 3 max.				
13	Temperature Cycle	Insulation Resistance	More than $1000\text{M}\Omega$ or $50\text{M}\Omega$ • μF (Whichever is smaller)	3 125±3 30±3 4 Room Temp. 3 max.				
		Dielectric Strength (Between Terminals)	No defects or abnormalities	 Pretreatment Perform a heat treatment at 150+0/-10°C for 1h, and then let sit at room temperature for 24±2h. 				
		Appearance	No defects or abnormalities	Set the capacitor at 40±2°C and relative humidity of				
14	Humidity (Steady	Capacitance Change	Within ±12.5%	90 to 95% for 500 ^{±2} / ₀ h. Remove and set for 24±2h at room temperature, then measure.				
- '	State)	D.F.	0.02 max.	Pretreatment				
	,	Insulation Resistance	More than $1000\text{M}\Omega$ or $50\text{M}\Omega$ • μF (Whichever is smaller)	Perform a heat treatment at 150+0/-10°C for 1h and then let sit at room temperature for 24±2h.				
	Appearance		No defects or abnormalities	Apply the rated voltage at 40±2°C and relative				
		Appearance		h				
	Humidity	Appearance Capacitance Change	Within ±12.5%	humidity of 90 to 95% for 500 ^{±2} 0. Remove and set for 24±2h at room temperature, then measure. (Charge/Discharge current ≤ 50mA)				
15	Humidity Load	Capacitance						

 $^{^{*}}$ "room condition" Temperature: 15 to 35°C, Relative humidity: 45 to 75%, Atmosphere pressure: 86 to 106kPa

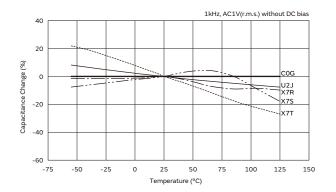
Continued on the following page. 7

Continued from the preceding page. \searrow

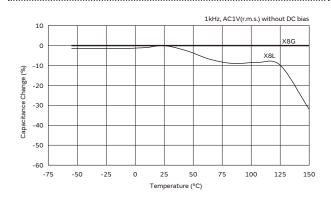
No.	o. Item		Specifications	Test Method			
		Appearance	No defects or abnormalities	Apply voltage in Table for 1000 ^{±48} ₀ h at the maximum operating temperature. Remove and set for 24±2h at room temperature, then measure. (Charge/Discharge current ≤ 50mA)			
		Capacitance Change	Within ±12.5%				
		D.F.	0.02 max.	Rated Voltage	Test Voltage		
16	High Temperature Load	Insulation Resistance	More than 1000M Ω or 50M Ω • μ F (Whichever is smaller)	DC250V DC450V DC630V	150% of the rated voltage 130% of the rated voltage 120% of the rated voltage 7 th, at test temperature. Remove		
		Appearance	No defects or abnormalities	The capacitor should be fully immersed, unagitated, in reagent at 20 to 25°C for 30±5s and then removed gently. Marking on the surface of the capacitor should immediately be visually examined. Reagent: Isopropyl alcohol			
17	Solvent Resistance	Marking	Legible				

Characteristics Reference Data (Typical Example)

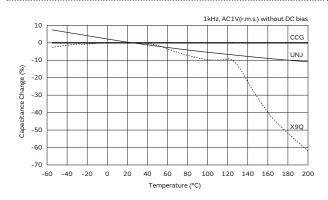
Capacitance - Temperature Characteristics (RCE, RDE Series)



Capacitance - Temperature Characteristics (RHE Series)

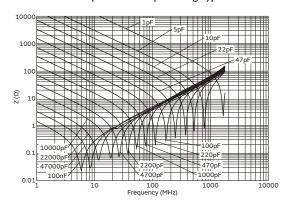


Capacitance - Temperature Characteristics (RHS Series)

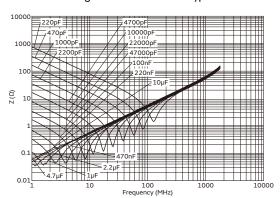


Impedance - Frequency Characteristics

Temperature Compensating Type

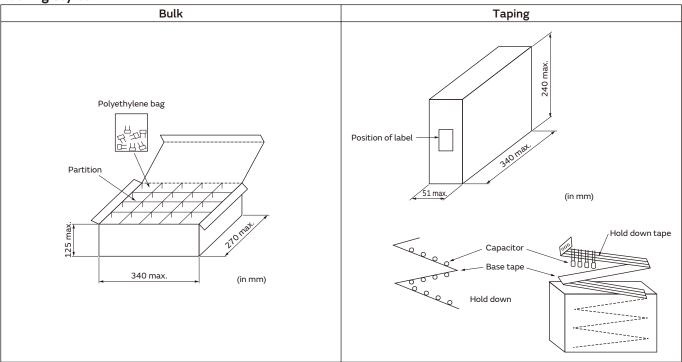


High Dielectric Constant Type



Packaging

Packing Styles



Minimum Quantity

[Bulk]

Series	Dimensions Code	Minimum Quantity (pcs./Bag)*
RCE	Except for "U"	500
RCE	U	200
RHE	0, 1, 2, 3, W	500
RHS	0, 1, 2	500
RDE	Except for "U"	500
RDE	U	200

[Taping]

Series	Dimensions Code	Minimum Quantity (pcs./Ammo Pack)*		
	0, 1, 2	2000		
RCE	3	2000 or 1500		
	4, 5, U, W	1500		
RHE	0, 1, 2	2000		
	3, W	1500		
RHS	0, 1	2000		
	2	1500		
RDE	0, 1, 2	2000		
	3	2000 or 1500		
	4, 5, W	1500		
	U	1500 or 1000		

Please order with an integral multiple of the minimum quantity above.

 ${\rm *Minimum}\ {\rm Quantity}\ {\rm may}\ {\rm change}\ {\rm depends}\ {\rm on}\ {\rm part}\ {\rm number}.$

Please check our website "Product details".

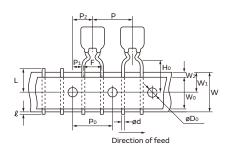
"Minimum Quantity" means the numbers of units of each delivery or order. The quantity should be an integral multiple of the "minimum quantity." (Please note that the actual delivery quantity in a package may change sometimes.)

Packaging

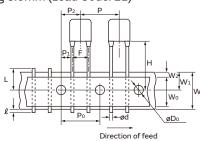
Continued from the preceding page.

Taping Dimensions

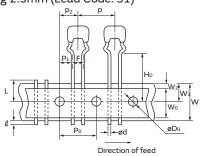
Inside Crimp Taping Lead Spacing 5.0mm (Lead Code: M1, M2)

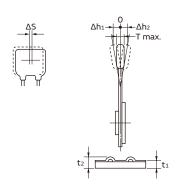


Straight Taping
Lead Spacing 2.5mm (Lead Code: DB, DG)
Lead Spacing 5.0mm (Lead Code: E1)



Outside Crimp Taping Lead Spacing 2.5mm (Lead Code: S1)





Dimension of capacitors on tape (in mm)

Dimension of capacitors on tape	(11111111)	1					
ltem	Code			Lead (Code		
item	Code	DB	DG	E1	M1	M2	S1
Pitch of component	Р	12.7±1.0					
Pitch of sprocket hole	Po	12.7±0.2					
Lead spacing	F	2.5 ^{+0.4} _{-0.2} 5.0 ^{+0.6} _{-0.2} 2.5			2.5+0.4		
Length from hole center to component center	P ₂	6.35±1.3					
Length from hole center to lead	P1	5.1±0.7 3.85±0.7				5.1±0.7	
		254±1.5 total length of componestspitch × 20					
Deviation along tape, left or right defect	ΔS	0±2.0					
Carrier tape width	W	18.0±0.5					
Position of sprocket hole	W1	9.0+0.5					
Lead distance between reference and	Ho	- 16.0±0.5 20.0±0.5 16.			16.0±0.5		
bottom plane	Н	16.0±0.5	20.0±0.5	17.5±0.5		-	
Protrusion length	l	0.5 max.					
Diameter of sprocket hole	D ₀	4.0±0.1					
Lead diameter	d	0.5±0.05					
Total tape thickness	t ₁	0.6±0.3					
Total thickness of tape and lead wire	t2	1.5 max.					
Body thickness	Т	Depends on Part Number					
Deviation across tape	Δh1	1.0 max.					
	Δh ₂	(Dimension code W, U: 2.0 max.)					
Portion to cut in case of defect	L	11.0 +0 -1.0					
Hold down tape width	Wo	9.5 min.					
Hold down tape position	W2	1.5±1.5					

∕!\Caution

(Caution (Storage and Operating Condition)

Operating and storage environment

The insulating coating of capacitors does not form a perfect seal; therefore, do not use or store capacitors in a corrosive atmosphere, especially where chloride gas, sulfide gas, acid, alkali, salt or the like are present. Also avoid exposure to moisture. Before cleaning, bonding or molding this product, verify that these processes do not affect product quality by testing the performance of a cleaned, bonded or molded product in the intended

equipment. Store the capacitors where the temperature and relative humidity do not exceed 5 to 40 degrees centigrade and 20 to 70%.
Use capacitors within 6 months after delivery.

FAILURE TO FOLLOW THE ABOVE CAUTIONS MAY RESULT, WORST CASE, IN A SHORT CIRCUIT AND CAUSE FUMING OR PARTIAL DISPERSION WHEN THE PRODUCT IS USED.

∴Caution (Rating)

1. Operating Voltage

When DC-rated capacitors are to be used in AC or ripple current circuits, be sure to maintain the Vp-p value of the applied voltage or the V0-p which contains DC bias within the rated voltage range.

When the voltage is applied to the circuit, starting or stopping may generate irregular voltage for a transit period because of resonance or switching. Be sure to use a capacitor with a rated voltage range that includes these irregular voltages.

When DC-rated capacitors are to be used in input circuits from commercial power source (AC filter), be sure to use Safety Recognized Capacitors because various regulations on withstand voltage or impulse withstand established for all equipment should be taken into consideration.

Voltage	DC Voltage	DC+AC Voltage	AC Voltage	Pulse Voltage (1)	Pulse Voltage (2)
Positional Measurement	Vo-p	Vo-p	Vp-p	Vp-p	Vp-p

2. Operating Temperature

Keep the surface temperature of a capacitor below the upper limit of its rated operating temperature range. Be sure to take into account the heat generated by the capacitor itself (Please refer to the following column 3) and by peripheral components.

3. Self-generated Heat

When the capacitor is used in a high-frequency current, pulse current or similar current, it may have self-generated heat due to dielectric loss. In the case of "High Dielectric Constant Type Capacitors", applied voltage load should be such that self-generated heat is within 20 °C under the condition where the capacitor is subjected at an atmosphere temperature of 25 °C. Excessive heat may lead to deterioration of the capacitor's characteristics and reliability. Please contact us if self-generated heat occurs with "Temperature Compensating Type Capacitors".

4. Measurement of Temperature

The surface temperature of capacitor should be measured under the condition where an atmosphere

temperature and a heat from peripheral components are stable.

The self-generated heat should be measured under the conditions where the capacitor is subjected at an atmosphere temperature 25°C and is not affected by radiant heat from other components or wind from surroundings.

When measuring, use a thermocouple of small thermal capacity -K of ø0.1mm.

Never attempt to perform measurement with the cooling fan running. Otherwise, accurate measurement cannot be ensured.

5. Fail-Safe

Be sure to provide an appropriate fail-safe function on your product to prevent a second damage that may be caused by the abnormal function or the failure of our product.

FAILURE TO FOLLOW THE ABOVE CAUTIONS MAY RESULT, WORST CASE, IN A SHORT CIRCUIT AND CAUSE FUMING OR PARTIAL DISPERSION WHEN THE PRODUCT IS USED.

69

1 Caution

(Caution (Soldering and Mounting)

1. Vibration and impact

Do not expose a capacitor or its leads to excessive shock or vibration during use.

2. Soldering

When soldering this product to a PCB/PWB, do not exceed the solder heat resistance specification of the capacitor. Subjecting this product to excessive heating could melt the internal junction solder and may result in thermal shocks that can crack the ceramic element.

3. Bonding, resin molding and coating

In case of bonding, molding or coating this product, verify that these processes do not affect the quality of the capacitor by testing the performance of the bonded, molded or coated product in the intended equipment.

In case the amount of application, dryness/ hardening conditions of adhesives and molding resins containing organic solvents (ethyl acetate, methyl ethyl ketone, toluene, etc.) are unsuitable, the outer coating resin of a capacitor may be damaged by the organic solvents and may result, worst case, in a short circuit.

The variation in thickness of adhesive or molding resin or coating may cause an outer coating resin cracking and/or ceramic element cracking of a capacitor in a temperature cycling.

4. Treatment after bonding, resin molding and coating When the outer coating is hot (over 100 degrees centigrade) after soldering, it becomes soft and fragile, so please be careful not to give it mechanical stress.

FAILURE TO FOLLOW THE ABOVE CAUTIONS MAY RESULT, WORST CASE, IN A SHORT CIRCUIT AND CAUSE FUMING OR PARTIAL DISPERSION WHEN THE PRODUCT IS USED.

(!) Caution (Handling)

Vibration and impact

Do not expose a capacitor or its leads to excessive shock or vibration during use.

FAILURE TO FOLLOW THE ABOVE CAUTIONS MAY RESULT, WORST CASE, IN A SHORT CIRCUIT AND CAUSE FUMING OR PARTIAL DISPERSION WHEN THE PRODUCT IS USED.

Notice

Notice (Rating)

Capacitance change of capacitor
In case of high dielectric constant type capacitors
Capacitors have an aging characteristic, whereby
the capacitor continually decreases its capacitance
slightly if the capacitor is left on for a long
time. Moreover, capacitance might change greatly
depending on the surrounding temperature or an
applied voltage.

Notice (Soldering and Mounting)

1. Cleaning (ultrasonic cleaning)

To perform ultrasonic cleaning, observe the following conditions.

Rinse bath capacity: Output of 20 watts per liter or less.

Rinsing time: 5 min. maximum.

Do not vibrate the PCB/PWB directly.

Excessive ultrasonic cleaning may lead to fatigue

destruction of the lead wires.

2. Soldering and Mounting

Insertion of the Lead Wire

- When soldering, insert the lead wire into the PCB without mechanically stressing the lead wire.
- Insert the lead wire into the PCB with a distance appropriate to the lead space.

Global Locations

For details please visit www.murata.com



⚠Note

1 Export Control

For customers outside Japan:

No Murata products should be used or sold, through any channels, for use in the design, development, production, utilization, maintenance or operation of, or otherwise contribution to (1) any weapons (Weapons of Mass Destruction [nuclear, chemical or biological weapons or missiles] or conventional weapons) or (2) goods or systems specially designed or intended for military end-use or utilization by military end-users.

For customers in Japan:

For products which are controlled items subject to the "Foreign Exchange and Foreign Trade Law" of Japan, the export license specified by the law is required for export.

- 2 Please contact our sales representatives or product engineers before using the products in this catalog for the applications listed below, which require especially high reliability for the prevention of defects which might directly damage a third party's life, body or property, or when one of our products is intended for use in applications other than those specified in this catalog.
 - Aircraft equipment
 - Aerospace equipment
 - 3 Undersea equipment
 - Power plant equipment
 - Medical equipment
 - Transportation equipment (vehicles, trains, ships, etc.)
 - Traffic signal equipment
 - S Disaster prevention / crime prevention equipment
 - O Data-processing equipment
 - Application of similar complexity and/or reliability requirements to the applications listed above

- 3 Product specifications in this catalog are as of October 2019. They are subject to change or our products in it may be discontinued without advance notice. Please check with our sales representatives or product engineers before ordering. If there are any questions, please contact our sales representatives or product engineers.
- 4 Please read rating and \(\Delta\)CAUTION (for storage, operating, rating, soldering, mounting and handling) in this catalog to prevent smoking and/or burning, etc.
- 5 This catalog has only typical specifications.
 Therefore, please approve our product
 specifications or transact the approval sheet
 for product specifications before ordering.
- Please note that unless otherwise specified, we shall assume no responsibility whatsoever for any conflict or dispute that may occur in connection with the effect of our and/or a third party's intellectual property rights and other related rights in consideration of your use of our products and/or information described or contained in our catalogs. In this connection, no representation shall be made to the effect that any third parties are authorized to use the rights mentioned above under licenses without our consent.
- 7 No ozone depleting substances (ODS) under the Montreal Protocol are used in our manufacturing process.

Murata Manufacturing Co., Ltd.

www.murata.com

