

● Part Numbering

Safety Standard Certified Multilayer Ceramic Capacitors

(Part Number)

GA3	52	Q	R7	GF	331	K	W31	L
①	②	③	④	⑤	⑥	⑦	⑧	⑨

① Series

Code	Series
EVA	Safety Standard Certified Resin Molding SMD Type Multilayer Ceramic Capacitors for Automotive (Powertrain/Safety)
GA3	Safety Standard Certified Chip Multilayer Ceramic Capacitors for Consumer Electronics & Industrial Equipment
KCA	Safety Standard Certified Metal Terminal Type Multilayer Ceramic Capacitors for Automotive (Powertrain/Safety)

② Dimensions (L×W)

Code	Dimensions (L×W)
42	4.5×2.0mm
43	4.5×3.2mm
52	5.7×2.8mm
55	5.7×5.0mm
86	8.0×6.0mm

As for KCA and EVA series, it represents the dimensions of the product body that does not include the metal terminal.

③ Dimensions (T)

GA3		KCA, EVA	
Code	Dimensions (T)	Code	Dimensions (T)
A	1.0mm	L	2.8mm
D	2.0mm	Q	3.7mm
E	2.5mm	T	4.8mm
Q	1.5mm	W	6.4mm
X	Depends on individual standards.		

④ Temperature Characteristics

Temperature Characteristic Codes		Temperature Characteristics				Operating Temperature Range	Capacitance Change Each Temperature (%)					
Code	Public STD Code	Reference Temperature	Temperature Range	Capacitance Change or Temperature Coefficient	-55°C		*2		-10°C			
					Max.		Min.	Max.	Min.	Max.	Min.	
1X	SL	JIS	20°C	20 to 85°C	+350 to -1000ppm/°C	-55 to 125°C	-	-	-	-	-	-
7U	U2J	EIA	25°C	25 to 125°C*1	-750±120ppm/°C	-55 to 125°C	8.78	5.04	6.04	3.47	3.84	2.21
R7	X7R	EIA	25°C	-55 to 125°C	±15%	-55 to 125°C	-	-	-	-	-	-

*1 Rated Voltage 100Vdc max: 25 to 85°C

*2 -25°C (Reference Temperature 20°C) / -30°C (Reference Temperature 25°C)

⑤ Certified Type

Code	Rated Voltage	Certified Type
GB	X2 : 250Vac	Type GB
GD	250Vac	Type GD
GF	X1 : 250Vac/Y2 : 250Vac	Type GF
MF	X1 : 250Vac/1000Vdc Y2 : 250Vac/1000Vdc	Type MF
TF	X1 : 305Vac/1500Vdc Y2 : 305Vac/1500Vdc	Type TF

⑥ Capacitance

Expressed by three-digit alphanumerics. 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. If any letter, other than "R" is included, this indicates the specific part number is a non-standard part.

Ex.)

Code	Capacitance
R50	0.50pF
1R0	1.0pF
100	10pF
103	10000pF

⑦ Capacitance Tolerance

Code	Capacitance Tolerance
J	±5%
K	±10%
M	±20%

⑧ Individual Specification

Expressed by three figures.

⑨ Packaging

Code	Packaging
L	ø180mm Embossed Taping
K	ø330mm Embossed Taping

Please contact us if you find any part number not provided in this table.