

These high voltage capacitors feature a special internal electrode design which reduces voltage concentrations by distributing voltage gradients throughout the entire capacitor. This unique design also affords increased capacitance values in a given case size and voltage rating. The capacitors are designed and manufactured to the general requirement of EIA198 and are subjected to a 100% electrical testing making them well suited for a wide variety of telecommunication, commercial, and industrial applications.





### APPLICATIONS

- Analog & Digital Modems
- Lighting Ballast Circuits
- DC-DC Converters
- LAN/WAN Interface
- Voltage Multipliers
- Back-lighting Inverters

**NOW AVAILABLE** with Polyterm<sup>®</sup> soft termination option for demanding environments & processes. Visit our website for full details.

### Mechanical Characteristics

### Available Capacitance

		Inches	(mm)	Rated Voltage	NPO Dielectric		X7R Dielectric	
					Minimum	Maximum	Minimum	Maximum
R15/0805 	L	.080 ±.010	(2.03 ±.25)	250 VDC	-	-	1000 pF	0.022 µF
	W	.050 ±.010	(1.27 ±.25)	500 VDC	10 pF	680 pF	1000 pF	0.010 µF
	T	.055 Max.	(1.40)	630 VDC	10 pF	560 pF	1000 pF	3900 pF
	E/B	.020 ±.010	(0.51 ±.25)	1000 VDC	10 pF	390 pF	100 pF	3300 pF
R18/1206 	L	.125 ±.010	(3.17 ±.25)	250 VDC	-	-	1000 pF	0.068 µF
	W	.062 ±.010	(1.57 ±.25)	500 VDC	10 pF	1500 pF	1000 pF	0.047 µF
	T	.067 Max.	(1.70)	630 VDC	10 pF	1200 pF	1000 pF	0.027 µF
	E/B	.020 ±.010	(0.51 ±.25)	1000 VDC	10 pF	1000 pF	100 pF	0.018 µF
				2000 VDC	10 pF	220 pF	100 pF	1000 pF
				3000 VDC	10 pF	82 pF	100 pF	220 pF
S41/1210 	L	.125 ±.010	(3.18 ±.25)	250 VDC	-	-	1000 pF	0.120 µF
	W	.095 ±.010	(2.41 ±.25)	500 VDC	10 pF	3900 pF	1000 pF	0.082 µF
	T	.080 Max.	(2.03)	630 VDC	10 pF	2700 pF	1000 pF	0.056 µF
	E/B	.020 ±.010	(0.51 ±.25)	1000 VDC	10 pF	1800 pF	100 pF	0.027 µF
				2000 VDC	10 pF	560 pF	100 pF	2200 pF
				3000 VDC	10 pF	220 pF	100 pF	560 pF
R29/1808 	L	.185 ±.015	(4.80 ±.25)	500 VDC	10 pF	4700 pF	1000 pF	0.056 µF
	W	.080 ±.010	(2.03 ±.25)	630 VDC	10 pF	3300 pF	1000 pF	0.047 µF
	T	.085 Max.	(2.16)	1000 VDC	1.0 pF	2200 pF	100 pF	0.033 µF
	E/B	.020 ±.010	(0.51 ±.25)	2000 VDC	1.0 pF	820 pF	100 pF	6800 pF
				3000 VDC	1.0 pF	470 pF	100 pF	3300 pF
				4000 VDC	1.0 pF	180 pF	100 pF	270 pF
				5000 VDC	1.0 pF	75 pF	47 pF	120 pF
				6000 VDC	1.0 pF	75 pF	47 pF	100 pF

Available capacitance values include the following significant retma values and their multiples:

1.0 1.2 1.5 1.8 2.2 2.7 3.3 3.9 4.7 5.6 6.8 8.2 (1.0 = 1.0, 10, 100, 1000, etc.)





Consult factory for non-retma values and sizes or voltages not shown.



# HIGH VOLTAGE SURFACE MOUNT MLCCs 250 - 6,000 VDC

## Mechanical Characteristics

## Available Capacitance

	Rated Voltage	NPO Dielectric		X7R Dielectric	
		Minimum	Maximum	Minimum	Maximum
<b>S43 / 1812</b> 	250 VDC	-	-	0.010 µF	0.270 µF
	500 VDC	100 pF	8200 pF	1000 pF	0.150 µF
	630 VDC	100 pF	6800 pF	1000 pF	0.100 µF
	1000 VDC	10 pF	5600 pF	1000 pF	0.056 µF
	2000 VDC	10 pF	1800 pF	100 pF	6800 pF
	3000 VDC	10 pF	1000 pF	100 pF	4700 pF
	4000 VDC	10 pF	390 pF	100 pF	1500 pF
	5000 VDC	10 pF	150 pF	100 pF	680 pF
	6000 VDC	10 pF	150 pF	10 pF	680 pF
<b>S49 / 1825</b> 	500 VDC	100 pF	0.018 µF	0.01 µF	0.330 µF
	630 VDC	100 pF	0.015 µF	0.01 µF	0.220 µF
	1000 VDC	10 pF	0.012 µF	1000 pF	0.039 µF
	2000 VDC	10 pF	5600 pF	100 pF	0.018 µF
	3000 VDC	10 pF	2200 pF	100 pF	8200 pF
	4000 VDC	10 pF	1200 pF	100 pF	2000 pF
	5000 VDC	10 pF	390 pF	100 pF	820 pF
	6000 VDC	10 pF	390 pF	100 pF	820 pF
	<b>S47 / 2220</b> 	500 VDC	1000 pF	0.018 µF	0.01 µF
630 VDC		1000 pF	0.018 µF	0.01 µF	0.270 µF
1000 VDC		100 pF	0.015 µF	1000 pF	0.056 µF
2000 VDC		100 pF	5600 pF	1000 pF	0.027 µF
3000 VDC		10 pF	2700 pF	100 pF	0.010 µF
4000 VDC		10 pF	1500 pF	100 pF	2200 pF
5000 VDC		10 pF	470 pF	100 pF	1500 pF
6000 VDC		10 pF	470 pF	100 pF	1500 pF
<b>S48 / 2225</b> 		500 VDC	1000 pF	0.027 µF	0.01 µF
	630 VDC	1000 pF	0.022 µF	0.01 µF	0.330 µF
	1000 VDC	100 pF	0.018 µF	1000 pF	0.120 µF
	2000 VDC	100 pF	8200 pF	1000 pF	0.039 µF
	3000 VDC	10 pF	3300 pF	100 pF	0.015 µF
	4000 VDC	10 pF	1800 pF	100 pF	5600 pF
	5000 VDC	10 pF	470 pF	100 pF	1500 pF
	6000 VDC	10 pF	470 pF	100 pF	1500 pF

Available capacitance values include the following significant retma values and their multiples: 1.0 1.2 1.5 1.8 2.2 2.7 3.3 3.9 4.7 5.6 6.8 8.2 (1.0 = 1.0, 10, 100, 1000, etc.) Consult factory for non-retma values and sizes or voltages not shown.

## ELECTRICAL CHARACTERISTICS

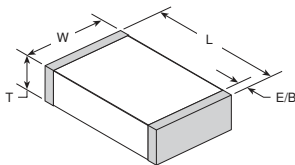
Meets the standard NPO & X7R dielectric specifications listed on page 20

Dielectric Withstanding Voltage

DWV = 1.5 X rated WVDC for ratings ≤ 500 WVDC,

DWV = 1.2 X rated WVDC for ratings ≥ 1,000 WVDC

NOTE: Capacitors may require a surface coating to prevent external arcing. Solder mask should not be used beneath capacitors. For more information see JDI Tech Note "Surface Arc Season"



## HOW TO ORDER

Part number written: 202R29N101KV4E

202	R29	N	101	K	V	4	E														
<b>VOLTAGE</b> 501 = 500 V 631 = 630 V 102 = 1000 V 202 = 2000 V 302 = 3000 V 402 = 4000 V 502 = 5000 V 602 = 6000 V	<b>CASE SIZE</b> See Chart  <b>DIELECTRIC</b> N = NPO/COG W = X7R	<b>CAPACITANCE</b> 1st two digits are significant; third digit denotes number of zeros, R = decimal.  1R0 = 1.0 pF 101 = 100 pF	<b>TOLERANCE</b> NPO: J = ± 5% K = ± 10%  X7R: K = ± 10% M = ± 20%	<b>TERMINATION</b> V = Ni barrier w/ 100% Sn Plating  F = Polyterm flexible termination	<b>MARKING</b> 4 = Unmarked 6 = EIA Code*	<b>TAPE MODIFIER</b> <table border="1"> <thead> <tr> <th>Code</th> <th>Tape</th> <th>Reel</th> </tr> </thead> <tbody> <tr> <td>E</td> <td>Embossed</td> <td>7"</td> </tr> <tr> <td>U</td> <td>Embossed</td> <td>13"</td> </tr> <tr> <td>T</td> <td>Paper</td> <td>7"</td> </tr> <tr> <td>R</td> <td>Paper</td> <td>13"</td> </tr> </tbody> </table> Tape specs. per EIA RS481	Code	Tape	Reel	E	Embossed	7"	U	Embossed	13"	T	Paper	7"	R	Paper	13"
Code	Tape	Reel																			
E	Embossed	7"																			
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