

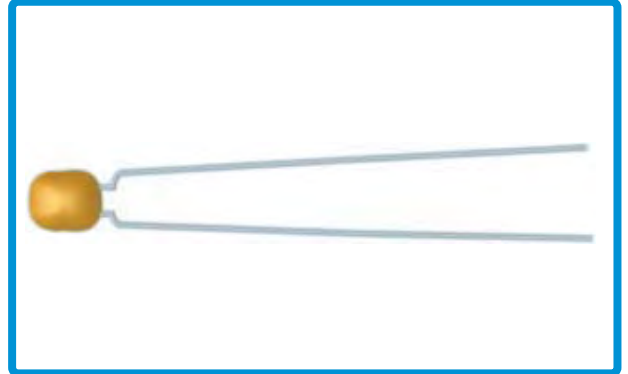
# Radial Leaded, Epoxy Dipped, Multilayer Ceramic Capacitors



RD Series

MERITEK

**MERITEK** Radial Leaded, Epoxy Dipped Multilayer Ceramic Capacitors are constructed with a moisture and shock resistant epoxy coating, and can be supplied in bulk or tape and reel packaging for automatic insertion in printed circuit boards. They have a wide range of applications in computers, data processors, telecommunication, industrial controls and instrumentation equipment, etc.



## PART NUMBERING SYSTEM

	<b>RD</b>	<b>15</b>	<b>YV</b>	<b>104</b>	<b>Z</b>	<b>500</b>	<b>RR</b>
Meritek Series							
Size							
Dielectric							
CODE	CG	XR	YV				
	NPO	X7R	Y5V				
Capacitance Code							
CODE	101	223	104				
(pF)	100	22000	100000				
(μF)	--	0.022	0.1				
Tolerance							
CODE	J	K	M	Z			
	± 5%	±10%	±20%	+80% to -20%			
Rated Voltage							
CODE	500	101	201				
	50V	100V	200V				
Packaging							
CODE	Blank		RR				
	Bulk		Radial Leaded, Reel Package				

Lead Spacing	Size Code and Dimensions in mm (inches)	
2.5 ± 0.8 (.10 ± 0.032)	<p><b>RD15</b></p>	<p><b>RD20</b></p>
	<p><b>RD16</b></p>	<p><b>RD21</b></p>
5.0 ± 0.8 (.20 ± 0.032)	<p><b>RD30</b></p>	<p>Lead length can be cut upon customer's request.</p> <p>Standard cut lead lengths are: 3.3 ± 0.8 (.13 ± .03) 6.0 ± 1.0 (.24 ± .04) 10.0 ± 2.0 (.39 ± .08)</p>

Specifications are subject to change without notice.

**Special lead styles available upon request.**

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## PERFORMANCE SPECIFICATIONS

### 1.ELECTRICAL

DIELECTRIC CODE	EIA	NPO	X7R	Y5V
Temperature Characteristic		0 ±30ppm /°C, C > 20pF 0 +120/-40ppm /°C, C ≤ 20pF	ΔC ±15% maximum Over -55°C to +125°C	ΔC ±22%/82% maximum Over -30 °C to +85 °C
Operating Temperature Range		-55 °C to + 125 °C	-55 °C to +125 °C	-30 °C to +85 °C
Measuring Conditions for Capacitance and D.F.		1 MHz, 1 Vrms, C < 1000pF	1 KHz, 1 Vrms	1 KHz, 0.5 Vrms
Dissipation Factor (D.F.) and Tangent of Loss Angle (tan δ)		≤ 0.1%	≤ 2.5%	≤ 5.0%
Insulation Resistance (I.R.) after 60 secs, charging at rated voltage, 25°C, 55% RH max.		≥ 100G ohms or ≥ 1000MμF Whichever is less	≥ 100G ohms or ≥ 1000MμF Whichever is less	≥ 10G ohms or ≥ 1000MμF Whichever is less
Voltage Proof 25°C, 1-5 secs		2.5 x Rated Voltage	2.5 x Rated Voltage	2.5 x Rated Voltage
Capacitance Aging		0	2.5% per decade hour	7% per decade hour

### 2.ENVIROMENTAL

Test	Test Condition	Post-Test Inspection Requirements			
Solderability	Solder 60Sn/40Pb, 235 ±5°C Immersion 2 ±0.5 sec. Depth of Immersion: 1.5 – 2.0mm	At least 95% of leads should be well tinned			
Resistance to Soldering Heat	Immersion in solder bath at 260 ±5°C for 10 ±1 sec. Recovery: 24 ±2 hrs. (NPO) 48 ±4 hrs. (X7R, Y5V)	No visible damage.			
			NPO	X7R	Y5V
		ΔC / °C	≤ ±5%	±10%	±20%
Rapid Change Of Temperature	-55 to +125°C (NPO, X7R) -25 TO +85°C (Y5V) 5 cycles, duration : 30 mins. Recovery: 24 ±2 hrs. (NPO) 48 ±4 hrs. (X7R, Y5V)	No visible damage			
Endurance	1000 hrs. at maximum temperature with 1.5 x rated voltage applied Recovery: 24 ±2 hrs. (NPO) 48 ±4 hrs. (X7R, Y5V)	No visible damage			
			NPO	X7R	Y5V
		ΔC / °C	≤ ±2%	≤ ±20%	≤ ±30%
		DF	≤ 0.3%	≤ 5%	≤ 10%
		IR	R.C > 25S		

### 3.Capacitance Range

SIZE	NPO	X7R	Y5V
RD15, RD16	10pF to 1000pF	1000pF to 0.1μF	8200pF to 0.1μF
RD20, RD21		0.1μF to 1.0μF	0.15μF to 1μF