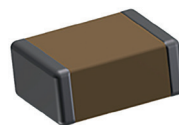


### • Applications



RoHS compliant

### • Electrical Parameters

**Electrical Characteristics** at + 25°C unless otherwise specified  
**Operating Temperature** - 55°C, + 225°C  
**Temperature Coefficient** ± 15% with 0Vdc applied  
**Dissipation Factor** ≤ 0.025

#### Insulation Resistance (IR)

25°C/Un 10<sup>5</sup> MOhm or 1000 Ohm-Farad whichever is less  
 125°C/Un 10<sup>4</sup> MOhm or 100 Ohm-Farad whichever is less

#### Dielectric Strength Test

Performed per method 103 of EIA 198-2-E  
 Applied test voltages :  
 ≤ 100Vdc-rated : 250% of rated voltage

### • Quick Reference Data

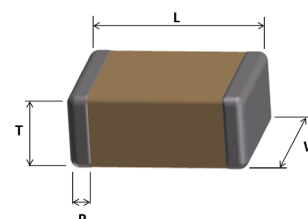
	0402	0603	0805	1206	1210	1812
25V	1nF - 22nF	1nF - 100nF	1nF - 220nF	1nF - 390nF	1nF - 1µF	1nF - 1.5µF
50V	1nF - 10nF	1nF - 47nF	1nF - 100nF	1nF - 330nF	1nF - 390nF	1nF - 1µF
100V		1nF - 33nF	1nF - 47nF	1nF - 220nF	1nF - 220nF	1nF - 560nF

### • Ordering Information

0805	Y	104	J	A	F	B	HT
<b>SIZE</b>	<b>DIELECTRIC</b>	<b>CAPACITANCE</b>	<b>TOLERANCE</b>	<b>VOLTAGE</b>	<b>TERMINATION</b>	<b>PACKAGING</b>	<b>HIGH TEMP</b>
0402 0603 0805 1206 1210 1812	Y = X7R	Expressed in picofarads (pF). The first two digits are significant, the third digit give the number of noughts. Example : 104 = 100000pF	J = ± 5% K = ± 10% M = ± 20%	X = 25V A = 50V B = 100V	F = Palladium-Silver	B = 7" reel V = Bulk	

### • Dimensions in millimeters

Designation	0402	0603	0805	1206	1210	1812
Length (L)	1.00 ± 0.1	1.60 ± 0.1	2.00 ± 0.2	3.20 ± 0.2	3.20 ± 0.2	4.50 ± 0.3
Width (W)	0.50 ± 0.1	0.80 ± 0.1	1.25 ± 0.2	1.60 ± 0.2	2.50 ± 0.2	3.20 ± 0.2
Thickness (T)	0.60	0.90	1.40	1.70	1.70	2.80
Termination (P)	Min	0.10	0.25	0.25	0.25	0.25
	Max	0.40	0.40	0.70	0.70	1.00



For P termination (Polymer type) add 0.20mm to all dimensions.

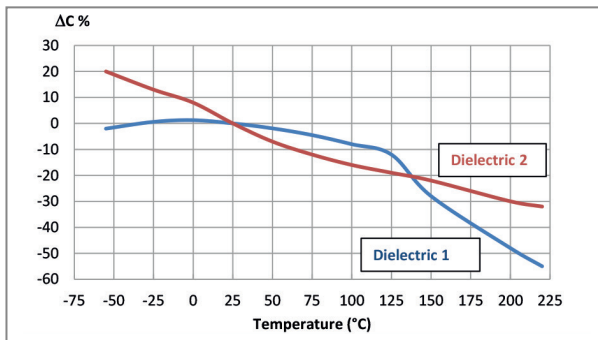
• Standard Sizes : 0402 to 1812

SIZE		0402		0603			0805			1206			1210			1812		
Voltage (Vdc)		25	50	25	50	100	25	50	100	25	50	100	25	50	100	25	50	100
Cap. Code	Capacitance																	
102	1nF																	
122	1.2nF																	
152	1.5nF																	
182	1.8nF																	
222	2.2nF																	
272	2.7nF																	
332	3.3nF																	
392	3.9nF																	
472	4.7nF																	
562	5.6nF																	
682	6.8nF																	
822	8.2nF																	
103	10nF																	
123	12nF																	
153	15nF																	
183	18nF																	
223	22nF																	
273	27nF																	
333	33nF																	
393	39nF																	
473	47nF																	
563	56nF																	
683	68nF																	
823	82nF																	
104	100nF																	
124	120nF																	
154	150nF																	
184	180nF																	
224	220nF																	
274	270nF																	
334	330nF																	
394	390nF																	
474	470nF																	
564	560nF																	
684	680nF																	
824	820nF																	
105	1µF																	
125	1.2µF																	
155	1.5µF																	
185	1.8µF																	
225	2.2µF																	

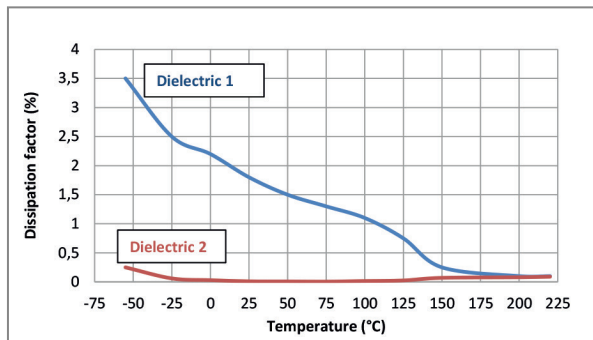
Other sizes available on request. Example : 0504, 0907, 1808

• **Typical Characteristics**

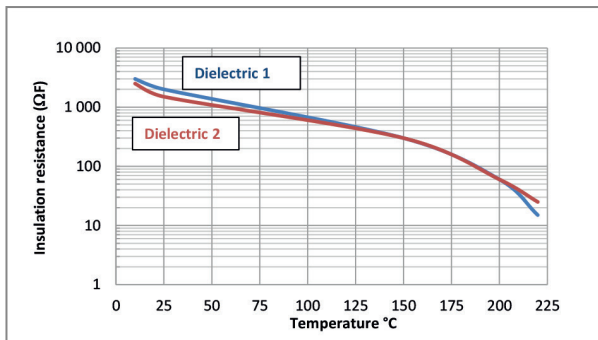
**Temperature coefficient of capacitance**



**Dissipation factor vs. temperature**



**Insulation resistance vs. temperature**



**Voltage coefficient of capacitance**

