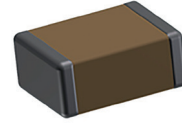


• Applications



RoHS compliant

• Electrical Parameters

Electrical Characteristics at + 25°C unless otherwise specified
Operating Temperature - 55°C, + 125°C
Temperature Coefficient - 2220 ± 350ppm/°C
Dissipation Factor < 10.10⁻⁴ at 1Vrms and 1kHz (or 1MHz)

Insulation Resistance (IR)

IR ≥ 20 000 MOhm or 500 Ohm-Farad at 25°C under 500V

Dielectric Strength Test

Performed per method 103 of EIA 198-2-E

Applied test voltages :

250Vdc-rated : 250% of rated voltage
 500Vdc-rated : min 150% of rated voltage
 630Vdc, 1000Vdc-rated : min 120% of rated voltage

• Quick Reference Data

	1812	2220	2225	3333	4040	5440	6660
200V	680pF - 120nF	560pF - 330nF	2.2nF - 390nF	10nF - 680nF	10nF - 1.2µF	10nF - 1.8µF	18nF - 1.8µF
500V	470pF - 39nF	390pF - 100nF	560pF - 120nF	820pF - 220nF	680pF - 390nF	2.2nF - 560nF	10nF - 1µF
630V	390pF - 27nF	330pF - 39nF	470pF - 82nF	560pF - 150nF	560pF - 270nF	1.8nF - 390nF	3.9nF - 680nF
750V	270pF - 18nF	270pF - 22nF	330pF - 56nF	470pF - 100nF	470pF - 180nF	1.5nF - 270nF	1.8nF - 470nF
1000V	220pF - 10nF	220pF - 10nF	270pF - 33nF	470pF - 56nF	470pF - 120nF	1.2nF - 150nF	1.5nF - 330nF
1500V	180pF - 4.7nF	180pF - 5.6nF	220pF - 15nF	470pF - 27nF	470pF - 56nF	1nF - 68nF	1.5nF - 150nF
2000V	150pF - 2.2nF	150pF - 3.9nF	180pF - 8.2nF	390pF - 15nF	390pF - 33nF	1nF - 39nF	1.2nF - 82nF
2500V	120pF - 1.5nF	120pF - 2.2nF	150pF - 5.6nF	330pF - 10nF	330pF - 22nF	680pF - 22nF	1nF - 56nF
3000V	100pF - 1nF	100pF - 1.8nF	120pF - 3.9nF	330pF - 6.8nF	330pF - 15nF	680pF - 15nF	1nF - 39nF
4000V	82pF - 560pF	68pF - 1.5nF	100pF - 1.8nF	270pF - 3.9nF	270pF - 8.2nF	560pF - 8.2nF	820pF - 22nF
5000V		56pF - 820pF	82pF - 1.2nF	220pF - 2.2nF	220pF - 4.7nF	470pF - 5.6nF	680pF - 12nF

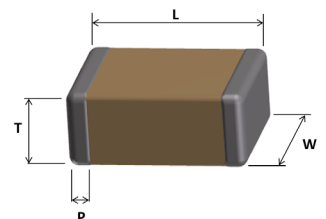
• Ordering Information

2225	P	104	J	A	P	B	XX
SIZE 1812 1825 2220 2225 3333 4040 5440 6660	DIELECTRIC P = High Power	CAPACITANCE Expressed in picofarads (pF). The first two digits are significant, the third digit give the number of noughts. Example : 104 = 100000pF	TOLERANCE G = ± 2% J = ± 5% K = ± 10% M = ± 20%	VOLTAGE C = 200V E = 500V F = 630V N = 750V G = 1000V O = 1500V H = 2000V I = 3000V K = 4000V L = 5000V	TERMINATION F = Palladium-Silver W = Silver with Gold plated finish X = Nickel with Tin plated finish P = Polymer with Tin plated finish C = Copper with Tin plated finish	PACKAGING B = 7" reel V = Bulk	SPECIAL PARAMETERS

• Dimensions in millimeters

Designation	1812	1825	2220	2225	3333	4040	5440	6660
Length (L)	4.50 ± 0.3	4.50 ± 0.3	5.70 ± 0.4	5.70 ± 0.4	8.4 ± 0.5	10.2 ± 1	13.80 ± 0.5	16.80 ± 0.6
Width (W)	3.20 ± 0.2	6.40 ± 0.3	5.00 ± 0.4	6.40 ± 0.4	8.4 ± 0.5	10.2 ± 1	16.80 ± 0.6	15.20 ± 0.4
Thickness (T)	2.80	2.20	4.00	4.50	6.00	6.00	3.20	5.50
Termination (P)	Min	0.25	0.25	0.25	0.80	0.80	0.5	0.5
	Max	0.80	0.80	0.80	1.50	1.50	1.50	2.00

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



• Standard Sizes : 1812 to 2220

SIZE		1812										2220										
Voltage (kVdc)		0.2	0.5	0.63	0.75	1	1.5	2	2.5	3	4	0.2	0.5	0.63	0.75	1	1.5	2	2.5	3	4	5
Cap. Code	Cap.																					
470	47pF																					
560	56pF																					
680	68pF																					
820	82pF																					
101	100pF																					
121	120pF																					
151	150pF																					
181	180pF																					
221	220pF																					
271	270pF																					
331	330pF																					
391	390pF																					
471	470pF																					
561	560pF																					
681	680pF																					
821	820pF																					
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																					
335	3.3µF																					
395	3.9µF																					

Other sizes available on request. Example : 0504, 0907, 1808, 3033

• Standard Sizes : 2225 to 3333

SIZE		2225										3333											
Voltage (kVdc)		0.2	0.5	0.63	0.75	1	1.5	2	2.5	3	4	5	0.2	0.5	0.63	0.75	1	1.5	2	2.5	3	4	5
Cap. Code	Cap.																						
470	47pF																						
560	56pF																						
680	68pF																						
820	82pF																						
101	100pF																						
121	120pF																						
151	150pF																						
181	180pF																						
221	220pF																						
271	270pF																						
331	330pF																						
391	390pF																						
471	470pF																						
561	560pF																						
681	680pF																						
821	820pF																						
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																						
335	3.3μF																						
395	3.9μF																						

Other sizes available on request. Example : 0504, 0907, 1808, 3033

• Standard Sizes : 4040 to 5440

SIZE		4040										5440											
Voltage (kVdc)		0.2	0.5	0.63	0.75	1	1.5	2	2.5	3	4	5	0.2	0.5	0.63	0.75	1	1.5	2	2.5	3	4	5
Cap. Code	Cap.																						
470	47pF																						
560	56pF																						
680	68pF																						
820	82pF																						
101	100pF																						
121	120pF																						
151	150pF																						
181	180pF																						
221	220pF																						
271	270pF																						
331	330pF																						
391	390pF																						
471	470pF																						
561	560pF																						
681	680pF																						
821	820pF																						
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																						
335	3.3μF																						
395	3.9μF																						

Other sizes available on request. Example : 0504, 0907, 1808, 3033

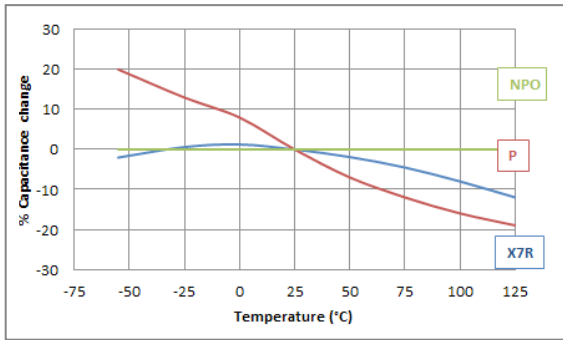
• Standard Sizes : 6660

SIZE		6660										
Voltage (kVdc)		0.2	0.5	0.63	0.75	1	1.5	2	2.5	3	4	5
Cap. Code	Cap.											
470	47pF											
560	56pF											
680	68pF											
820	82pF											
101	100pF											
121	120pF											
151	150pF											
181	180pF											
221	220pF											
271	270pF											
331	330pF											
391	390pF											
471	470pF											
561	560pF											
681	680pF											
821	820pF											
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											
335	3.3μF											
395	3.9μF											

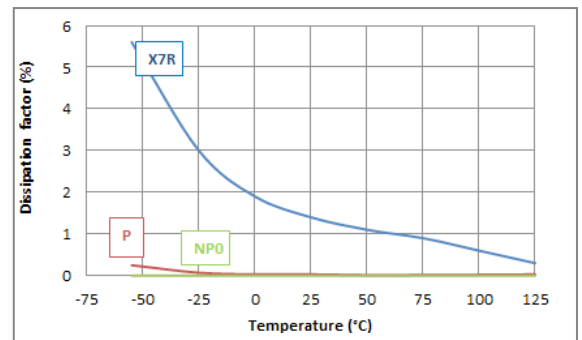
Other sizes available on request. Example : 0504, 0907, 1808, 3033

• **Typical Characteristics**

Capacitance vs. temperature



Dissipation factor vs. temperature



Capacitance vs. voltage

