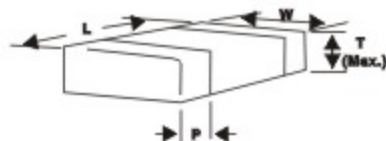


X7R/X5R DIELECTRIC Ceramic Capacitors Multilayer Chips



FEATURES

- General purpose dielectric
- Excellent aging characteristics
- Ideal for decoupling and filtering
- Wide range of case sizes, voltage and capacitance values
- RoHS Compliance

DIMENSIONS [NUMBERS IN BRACKETS INDICATES MILLIMETERS]

EIA CODE	LENTH(L)	WIDTH(W)	THICKNESS(T)* Max.	MAX TERMINATION(P)	
				Min.	Max.
0201	.024±.001[0.60±0.03]	.012±.001[0.30±0.03]	.012[0.30]	.006[0.15]	.005[0.12]
0402	.040±.002[1.00±0.10]	.020±.004[0.50±0.10]	.024[0.61]	.008[0.20]	.012[0.30]
0603	.063±.005[1.60±0.12]	.031±.005[0.80±0.12]	.008[1.50]	.010[0.25]	.026[0.65]
0805	.074±.008[2.00±0.20]	.049±.008[1.25±0.20]	.091[2.30]	.010[0.25]	.028[0.71]
1206	.126±.010[3.20±0.25]	.063±.010[1.60±0.25]	.100[2.55]	.010[0.25]	.028[0.71]
1210	.126±.016[3.20±0.40]	.100±.016[2.50±0.40]	.115[2.85]	.010[0.25]	.028[0.71]
1812	.177±.016[4.50±0.40]	.126±.016[3.20±0.40]	.131[3.55]	.010[0.25]	.030[0.76]

*The thickness may be higher for newly developed products, check website for the updated specifications.

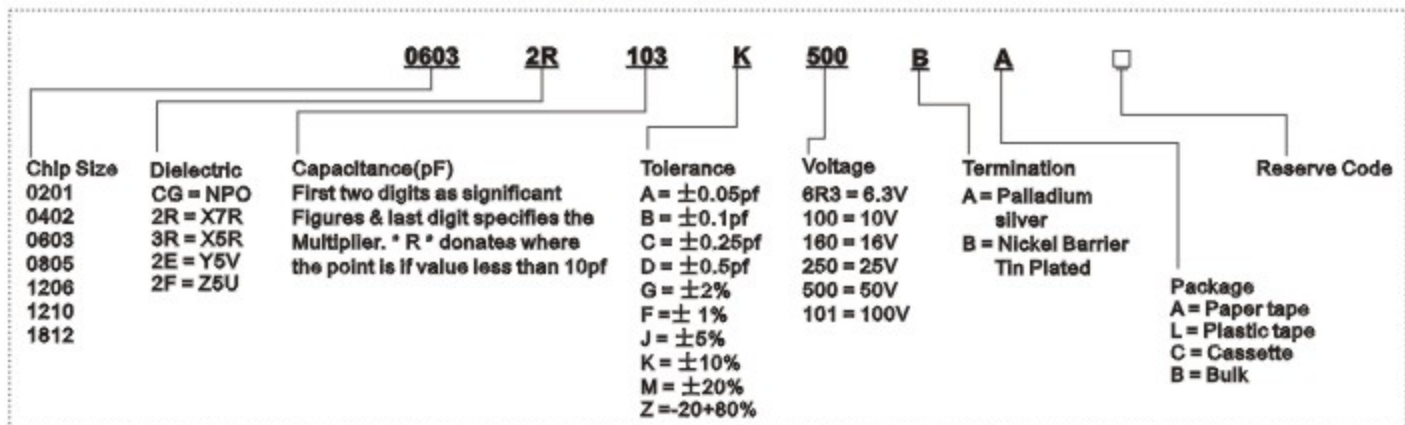
APPLICATIONS

- Consumer Electronics, for examples
 - tuners
 - television receivers
 - videorecorders
 - all types of cameras
- Telecommunications
- Automotive
- Data Processing

QUICK REFERENCE DATA

DESCRIPTION	VALUE
Rated voltage U_n (DC)	6.3v, 10v, 16v, 25v, 50v, 100v (IEC)
Capacitance range	100pF~100uF
Tolerance	±20%, ±10%, ±5% & ±2%
Test Voltage (DC) For 1 minute	2.5 x U_n
Detail specifications	based on CECC 32 101-801

PART NUMBERING SYSTEM



X7R DIELECTRIC 容值选择表

EIA CODE		0201			0402			0603			0805			1206			1210			1812			
Voltage (dc)		16	25	50	16	25	50	25	50	100	25	50	100	25	50	100	25	50	100	25	50	100	
Capacitance Code	Capacitance																						
101	100pF																						
121	120pF																						
151	150pF																						
181	180pF																						
201	200pF																						
221	220pF																						
271	270pF																						
301	300pF																						
331	330pF																						
391	390pF																						
471	470pF																						
561	560pF																						
681	680pF																						
821	820pF																						
102	1000pF																						
122	1200pF																						
152	1500pF																						
182	1800pF																						
222	2200pF																						
272	2700pF																						
332	3300pF																						
392	3900pF																						
472	4700pF																						
562	5600pF																						
682	6800pF																						
822	8200pF																						
103	.010 μ F																						
123	.012 μ F																						
153	.015 μ F																						
183	.018 μ F																						
223	.022 μ F																						
273	.027 μ F																						
333	.047 μ F																						
393	.039 μ F																						
473	.047 μ F																						
563	.056 μ F																						
683	.068 μ F																						
104	.10 μ F																						
124	.12 μ F					10V																	
184	.18 μ F					10V																	
224	.22 μ F					6.3V																	
274	.27 μ F									16V													
334	.33 μ F									16V													
474	.47 μ F									16V													
105	1.0 μ F									16V													
225	2.2 μ F								10V		16V												
475	4.7 μ F										6.3V												
106	10 μ F												16V				16V						
226	22 μ F																16V						

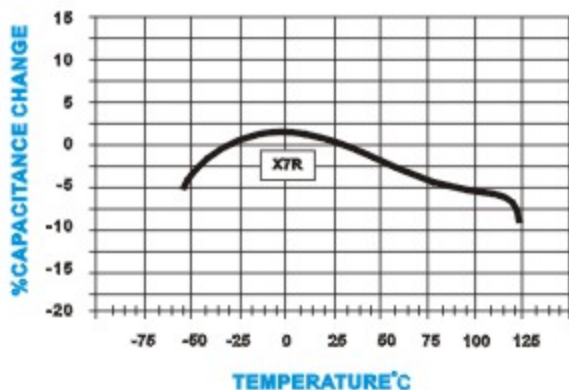
*For high value capacitors, please refer to X5R series next page .

X5R DIELECTRIC 容值选择表

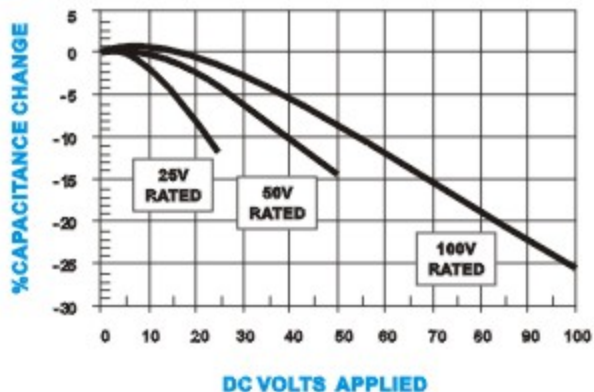
EIA CODE		0201			0402				0603				0805			1206				1210					
Voltage (dc)		16	25	50	6.3	10	16	25	6.3	10	16	25	6.3	10	25	6.3	10	16	25	6.3	10	16	25		
Capacitance Code	Capacitance																								
101	100pF																								
121	120pF																								
151	150pF																								
181	180pF																								
221	220pF																								
271	270pF																								
331	330pF																								
391	390pF																								
471	470pF																								
561	560pF																								
681	680pF																								
821	820pF																								
102	1000pF																								
122	1200pF																								
152	1500pF																								
182	1800pF																								
222	2200pF																								
272	2700pF																								
332	3300pF																								
392	3900pF																								
472	4700pF																								
562	5600pF																								
682	6800pF																								
822	8200pF																								
103	.010 μ F																								
123	.012 μ F																								
153	.015 μ F																								
183	.018 μ F																								
223	.022 μ F	6.3V																							
273	.027 μ F																								
333	.033 μ F																								
393	.039 μ F																								
473	.047 μ F																								
563	.056 μ F																								
683	.068 μ F																								
823	.082 μ F																								
104	.10 μ F	10V																							
224	.22 μ F	6.3V																							
334	.33 μ F																								
474	.47 μ F																								
624	.62 μ F																								
105	1.0 μ F																								
155	1.5 μ F																								
225	2.2 μ F																								
335	3.3 μ F																								
475	4.7 μ F																								
106	10 μ F																								
156	15 μ F																								
226	22 μ F																								
336	33 μ F																								
476	47 μ F																								
107	100 μ F																								

X7R/X5R DIELECTRIC - TYPICAL PARAMETERS

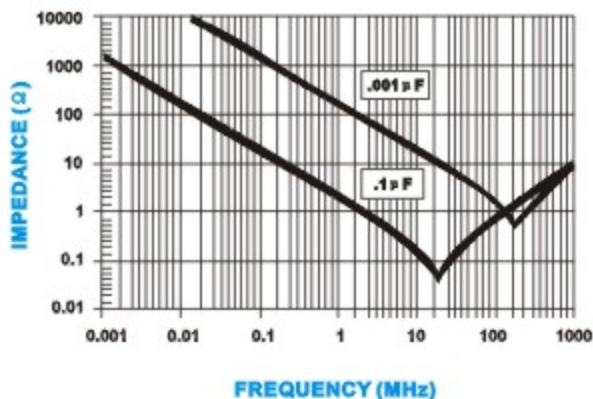
TEMPERATURE COEFFICIENT OF CAPACITANCE



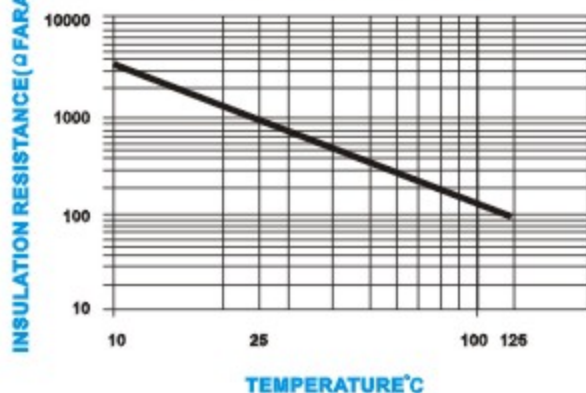
VOLTAGE COEFFICIENT OF CAPACITANCE - X7R



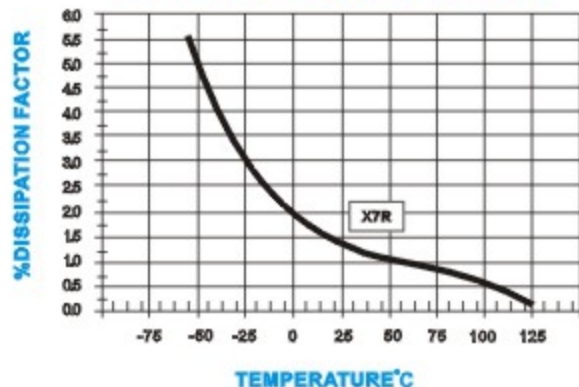
IMPEDANCE VS FREQUENCY - X7R



MINIMUM INSULATOR RESISTANCE VS TEMPERATURE



DISSIPATION FACTOR VS TEMPERATURE



AGING RATE - X7R

