CERAMIC CHIP CAPACITOR

SPECIFICATION:

Temperature Characteristics	NPO	X7R	Y5V
Operation Temperature Range	-55℃ ~ +125℃	-55℃ ~ +125℃	-30℃ ~ +85℃
Capacitance Change	0±30ppm/℃	±15% max.	+22% ~ -82% max.
Rated Working Voltage (DC)	25V, 50V, 100V	16V, 25V, 50V, 100V, 250V, 500V, 630V, 1KV	10V, 16V, 25V, 50V
Capacitance Range (at 25℃)	0.5pF to 4,700pF	100pF to 10 μF	1,000pF to 10 μF
Capacitance Tolerance	±0.25pF, ±0.50pF ±5% , ±10%	±10% , ±20%	±20%, +80% -20%
Dissipation Factor (at 25℃)	0.1% max at 1V rms	2.5% max at 1V rms 3.5% max for 16V W.V.	7% max at 0.5V rms 12.5% max for 10V W.V.
Test Frequency	1M Hz±50KHz, 1V rms (for 1000pF or less) 1K Hz±50Hz, 1V rms (for cap. over 1000pF)	1K Hz±50Hz, 1V rms	1K Hz±50Hz, 1V rms
Insulation Resistance (at 25℃)	100GΩ or 1000MΩ x μF whichever is less	10GΩ or 1000MΩ x μF whichever is less	10GΩ or 1000MΩ x μF whichever is less
Dielectric Strength	Withstand 250% of rated working voltage with 50mA current max, 5 sec.		

CAPACITANCE RANGE CHART :

TYPE	NPO (capacitance in pF)						
W.V.(DC)	25V	50V	100V	250V	500V	630V	1KV
CP0402		0.5 ~ 120					
CP0603	0.5 ~ 1,000		1.0 ~ 330	1.0 ~ 100			
CP0805		0.5 ~ 2,400	1.0 ~ 1,500	1.0 ~ 560	1.0 ~ 220		
CP1206			1.0 ~ 4,700	1.0 ~ 1,800	1.0 ~ 1,800	1.0 ~ 1,000	1.0 ~ 120

TYPE	X7R (capacitance in pF)							
W.V.(DC)	16V	25V	50V	100V	250V	500V	630V	1KV
CP0402	8,200 ~ 33,000	4,700 ~ 6,800	220 ~ 3,900					
CP0603	18,000 ~ 100,000	10,000 ~ 27,000	180 ~ 22,000	100 ~ 10,000	100 ~ 5,600			
CP0805	10,000 ~ 1,000,000	10,000 ~ 150,000	150 ~ 100,000	100 ~ 47,000	100 ~ 27,000			
CP1206	330 ~ 10,000,000	330 ~ 330,000	330 ~ 150,000	100 ~ 150,000	100 ~ 100,000	180 ~ 15,000	180 ~ 6,800	100 ~ 2,200

TYPE	Y5V (capacitance in pF)			
W.V.(DC)	10V	16V	25V	50V
CP0402		33,000 ~ 100,000	22,000	1,000 ~ 15,000
CP0603	47,000 ~ 1,000,000	47,000 ~ 330,000	33,000 ~ 100,000	1,000 ~ 100,000
CP0805	220,000 ~ 2,200,000	220,000 ~ 100,000	1,000 ~ 330,000	1,000 ~ 220,000
CP1206	220,000 ~ 10,000,000	220,000 ~ 4,700,000	68,000 ~ 1,000,000	1,000 ~ 470,000