

# CERAMIC CHIP CAPACITORS X7R (BX) DIELECTRIC

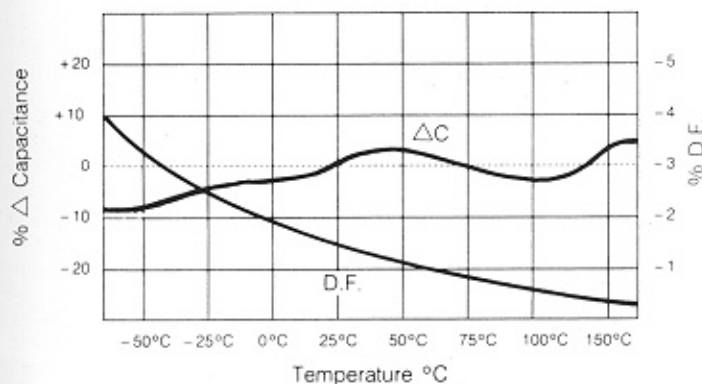
## APPLICATION:

X7R dielectric properties; suited for by-pass and coupling purposes, filtering, frequency discrimination, DC blockage, and as voltage transient suppression elements.

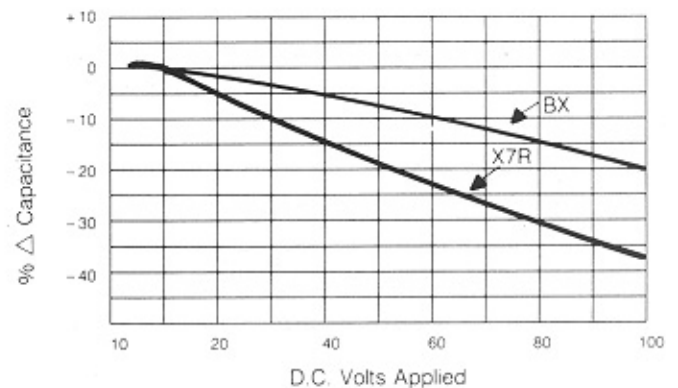
## General Specification

- Operating temperature rang  $-55^{\circ}\text{C} \sim +125^{\circ}\text{C}$
- Capacitance Range: 100pF  $\sim$  1000000pF
- Capacitance Tolerance:  $\pm 0.25\text{pF}$ ,  $\pm 0.5\text{pF}$ ,  $\pm 5\%$ ,  $\pm 10\%$ ,  $\pm 20\%$
- Voltage Ratings: 25VDC, 50VDC, 100VDC, 200VDC, 250VDC, 500VDC, 1KV, 2KV, 3KV
- Dissipation Factor (1 KHz, 1.0 Vrms,  $25^{\circ}\text{C}$ ) 2.5% Max
- Insulation Resistance (rated voltage applied at  $25^{\circ}\text{C}$ ) 100,000 M  $\Omega$  or 1,000  $\Omega$ -F min
- Dielectric strength  $> 2.5\text{X WV. DC.}$

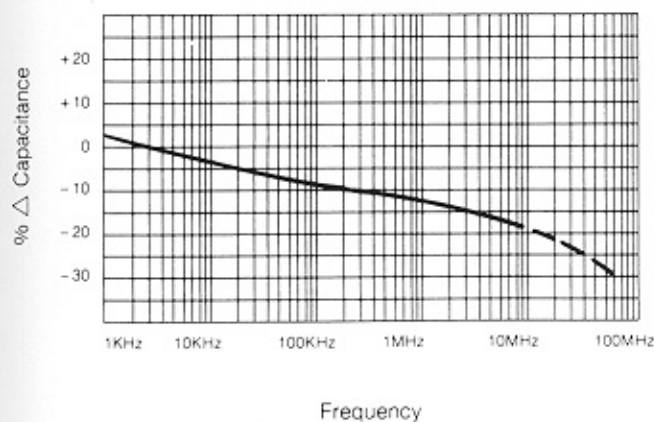
$\Delta$  C, D, F, VS. Temperature Coefficient



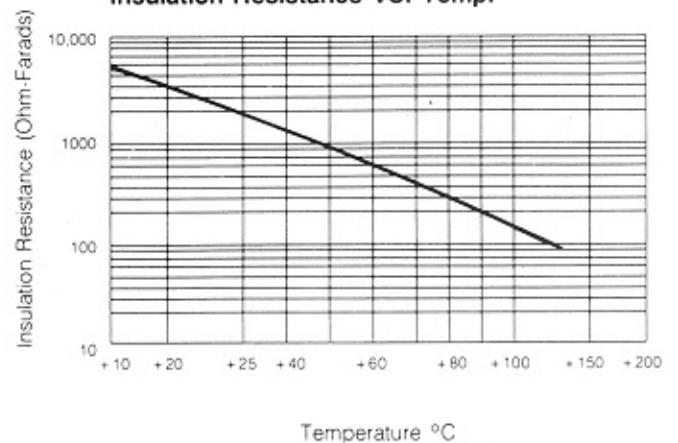
$\Delta$  C, VS. Voltage Coefficient



$\Delta$  C, VS. Frequency Coefficient

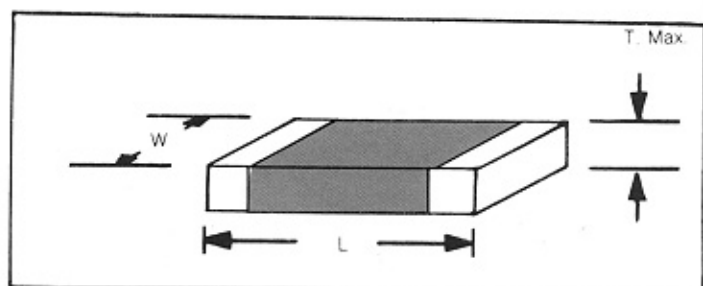
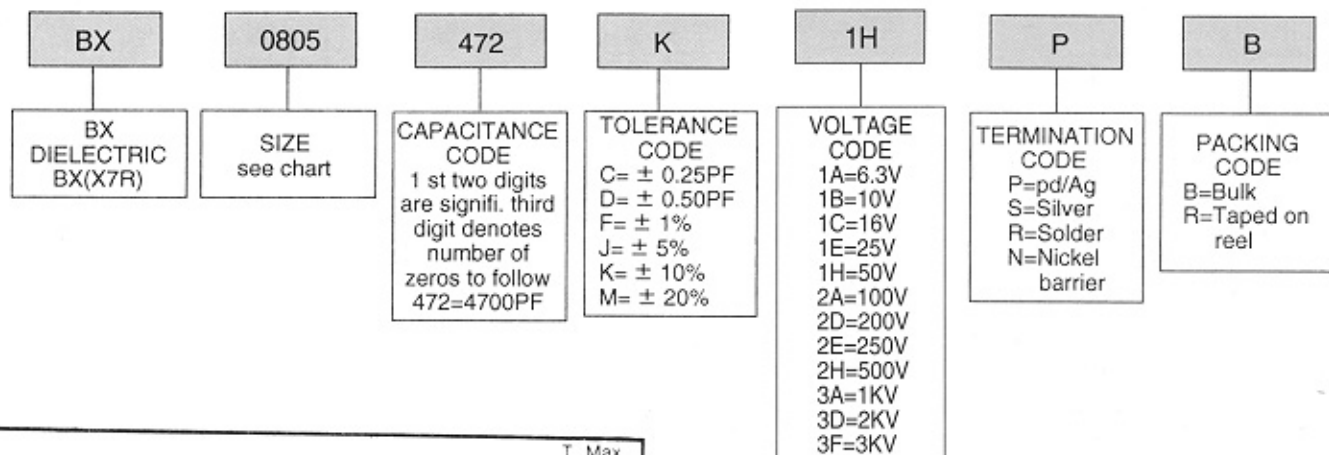


Insulation Resistance VS. Temp.



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## Part Code Designation



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TYPE	RATED VOLT. (VDC)	CAPACITANCE		DIMENSIONS (MM)		
		RANGE (pF)	TOL	L	W	T max
0402	25	100 ~ 3300	K.M.	1.00 ± 0.05	0.50 ± 0.05	0.55
0603		180 ~ 180000		1.60 ± 0.10	0.80 ± 0.10	0.80
0805		180 ~ 100000		2.00 ± 0.15	1.25 ± 0.15	1.25
0603	50	180 ~ 68000	K.M.	1.60 ± 0.10	0.80 ± 0.10	0.80
0805	50	180 ~ 100000		2.00 ± 0.15	1.25 ± 0.15	1.25
1206		470 ~ 1000000		32.0 ± 0.20	16.0 ± 0.20	1.27
1210		180000 ~ 27000		32.0 ± 0.20	25.0 ± 0.20	1.65
1812		330000 ~ 470000		4.50 ± 0.20	3.20 ± 0.20	1.65

### NOTES

- Dimensions are in millimeters.
- Other capacitance values and voltages are available upon request.