

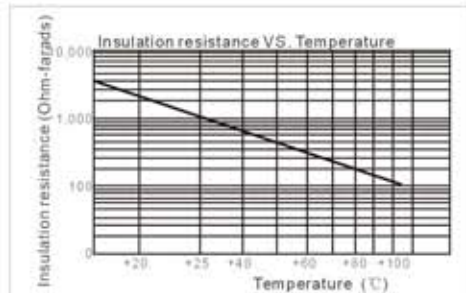
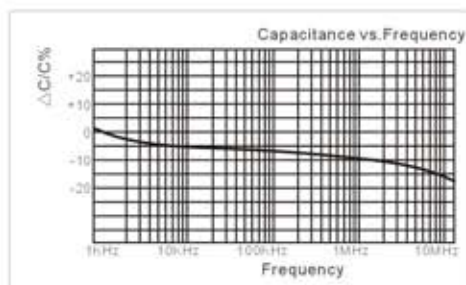
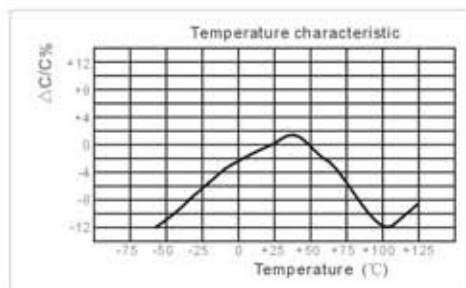
FEATURES

X7R formulations are called "temperature stable" ceramics and into EIA Class II dielectric materials. X7R is the most popular of these intermediate dielectric constant materials. Its temperature variation of capacitance is within $\pm 15\%$ from -55 to 125°C . Its aging rate is 1%.

PERFORMANCE CHARACTERISTICS

Capacitance range	100pF~10 μ F
Capacitance tolerance	Preferred $\pm 10\%$, $\pm 20\%$
Operating temperature range	-55°C ~ 125°C
Temperature coefficient	within $\pm 15\%$
Rated voltage	6.3V, 10V, 16V, 25V, 50V, 100V
Disipation factor	For $\leq 10\text{V}$: DF $\leq 5.0\%$, For 16V: DF $\leq 3.5\%$, For 25V min.: DF $\leq 2.5\%$
Insulation resistance	10G Ω min, or 500 Ω F min., whichever is less
Dielectric withstanding voltage	250% rated voltage
Test voltage	$\leq 10\mu\text{F}$, $1 \pm 0.2\text{Vrms}$ $> 10\mu\text{F}$, $0.5 \pm 0.1\text{Vrms}$
Test frequency	$\leq 10\mu\text{F}$, 1KHz $\pm 10\%$ $> 10\mu\text{F}$, 120Hz $\pm 24\text{Hz}$

TYPICAL CHARACTERISTIC CURVES



CAPACITANCE RANGE VS. CHIP SIZE

尺寸 Size	6.3V	10V	16V	25V	50V	100V
0402	100pF~0.22 μ F	100pF~0.1 μ F	100pF~0.1 μ F	100pF~22nF	100pF~10nF	--
0603	100pF~2.2 μ F	100pF~1.5 μ F	100pF~1.0 μ F	100pF~1.0 μ F	100pF~0.1 μ F	100pF~10nF
0805	100pF~10 μ F	100pF~4.7 μ F	100pF~1.5 μ F	100pF~1.0 μ F	100pF~0.22 μ F	100pF~22nF
1206	100pF~22 μ F	100pF~10 μ F	100pF~2.2 μ F	100pF~1.5 μ F	100pF~1.0 μ F	100pF~0.1 μ F