

High Voltage Products

NPO DIELECTRIC

Performance Characteristics

Capacitance Range	$10\text{pF} \leq C \leq 1000\text{pF}$ (25°C , $1.0 \pm 0.2V_{\text{rms}}$ at 1MHz) $1000\text{pF} < C < 10,000\text{pF}$ (25°C , $1.0 \pm 0.2V_{\text{rms}}$ at 1kHz)
Capacitance Tolerance	$\pm 5\%$, $\pm 10\%$, $\pm 20\%$
Dissipation Factor	Maximum 0.1%
Operation Temperature Range	-55°C to 125°C
Temperature Change Coefficient	Within ± 30 ppm/ $^\circ\text{C}$
Insulation Resistance	$100\text{G}\Omega$ min. or $500\text{M}\Omega - \mu\text{F}$ min., Whichever is less
Voltage Proof	$100\text{V} \leq U_R < 500\text{V}$: $2 \times U_R$ for 1~5secs within 50mA current $500\text{V} \leq U_R < 1000\text{V}$: $1.5 \times U_R$ for 1~5secs within 50mA current $1000\text{V} \leq U_R$: $1.2 \times U_R$ for 1~5secs within 50mA current
Thickness	Depend upon size, voltage and capacitance value

X7R DIELECTRIC

Performance Characteristics

Capacitance Range	$150\text{pF} \leq C \leq 330000\text{pf}$ (25°C , $1.0 \pm 0.2V_{\text{rms}}$ at 1kHz)
Capacitance Tolerance	$\pm 10\%$, $\pm 20\%$
Dissipation Factor	Maximum 2.5%
Temperature Change Coefficient	Within $\pm 15\%$
Operation Temperature Range	-55°C to 125°C
Insulation Resistance	$100\text{G}\Omega$ min. or $500\text{M}\Omega - \mu\text{F}$ min., Whichever is less
Voltage Proof	$100\text{V} \leq U_R < 500\text{V}$: $2 \times U_R$ for 1~5secs within 50mA current $U_R = 500\text{V}$: $1.5 \times U_R$ for 1~5secs within 50mA current
Thickness	Depend upon size, voltage and capacitance value