

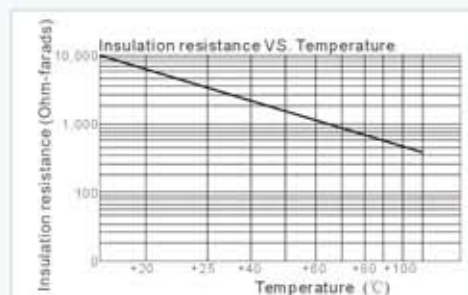
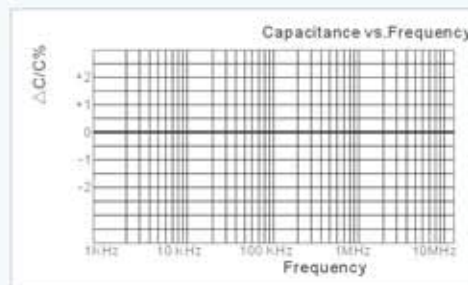
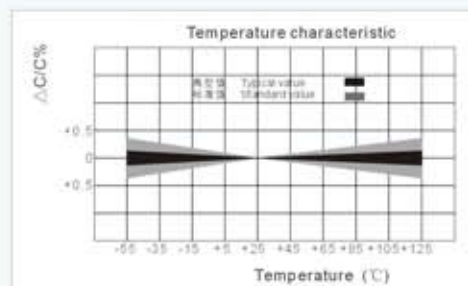
## FEATURES

COG(NPO) is the most popular for mutation of the "temperature compensation" capacitor. According to EIA, it is Class I dielectric. And temperature coefficient is within  $0 \pm 30 \text{ppm}/^\circ\text{C}$ . Typical capacitance change with frequency and voltage is negligible at less than  $\pm 0.05\%$ . COG(NPO) formulations show no aging characteristics. COG(NPO) formulations usually have a "Q" in excess of 1000 and shows little capacitance.

## PERFORMANCE CHARACTERISTICS

## TYPICAL CHARACTERISTIC CURVES

Capacitance range	0.2pF~10nF
Capacitance tolerance	Preferred $\pm 5\%, \pm 10\%$ For values $\leq 10\text{pF}$ , Preferred tolerance is $\pm 0.5\text{pF}$ , also available $\pm 0.25\text{pF}$
Operating temperature range	$-55^\circ\text{C} \sim +125^\circ\text{C}$
Temperature coefficient	$0 \pm 30 \text{ppm}/^\circ\text{C}$
Rated voltage	25V, 50V, 100V
Dissipation factor and "Q"	$C_r \geq 30\text{pF}, Q \geq 1000$ $C_s < 30\text{pF}, Q \geq 400 + 20C_r$
Insulation resistance	more than $10\text{G}\Omega$
Dielectric withstanding voltage	250% rated voltage
Test voltage	$1 \pm 0.2\text{Vrms}$
Test frequency	For values $> 1000\text{pF}$ : $1\text{KHz} \pm 10\%$ For values $\leq 1000\text{pF}$ : $1\text{MHz} \pm 10\%$



## CAPACITANCE RANGE VS. CHIP SIZE

尺寸 Size	25V	50V	100V
0402	0.2pF~470pF	0.2pF~1.0nF	--
0603	0.2pF~2.2nF	0.2pF~1.5nF	0.2pF~1.0nF
0805	0.5pF~10nF	0.5pF~2.2nF	0.5pF~1.5nF
1206	0.5pF~10nF	0.5pF~4.7nF	0.5pF~2.2nF