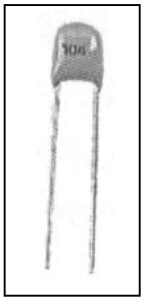


Capacitors

Radial Multi-layer Ceramic Capacitors

The COG (NPO) series is a high Q, low K temperature compensating type of dielectric with stable electrical properties under varying voltage, temperature, frequency and time. The series is suitable for circuits requiring low loss, circuits with pulse, timing circuits and tuning applications.

Features:

- Very low temperature coefficient
- Stable electrical characteristics
- High capacitance and miniature size
- Consistent dimensions and surface finish
- Engineered for automatic feeding and insertion

General Specifications:

Operating temperature range:	-55 to 125°C
Temperature coefficient, ΔC max. :	0 ±30 ppm/°C
Temp-voltage coefficient ΔC max.: @WVDC:	0 ±30 ppm/°C
Dissipation factor (tan δ), @ 25°C:	0.1% max., 0.02% typical
Insulation resistance (IR), @ 25°C: @ 125°C:	Lesser of 100GΩ or 1000MΩμF Lesser of 1.0GΩ or 10MΩμF
Ageing rate:	0% per decade hour
Testing parameters:	1MHz for units < 1000pF 1.0Vrms ±0.2Vrms 1KHz for units ≥ 1000pF 25°C, 0V bias
Dielectric withstanding voltage:	2.5X WVDC

COG (NPO) has the least value of temperature coefficient. The temperature coefficient characteristics are illustrated in figure 1.1. Figure 1.2 illustrates the variation pattern of dissipation with respect to temperature.
The AC Voltage coefficient and DC voltage coefficient are illustrated in figures 1.3 and 1.4 respectively.

COG (NPO Characteristic Graphs:

Figure 1.1

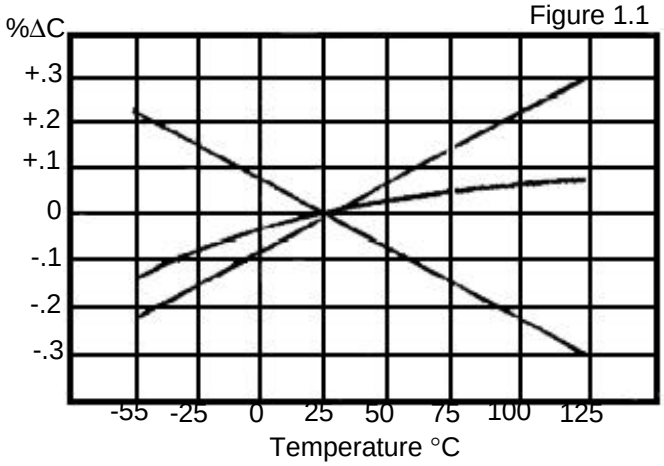


Figure 1.2

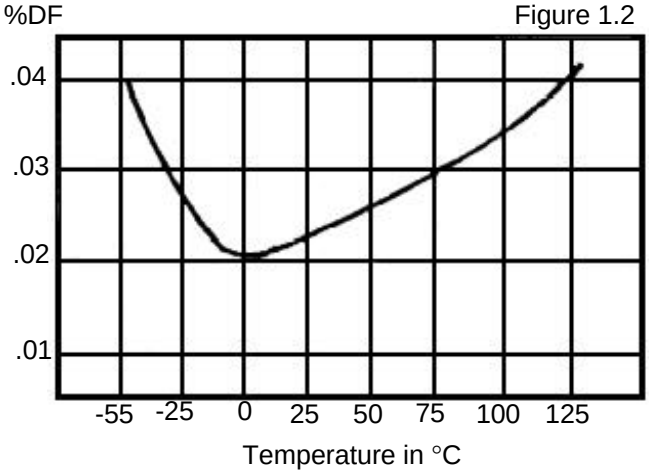
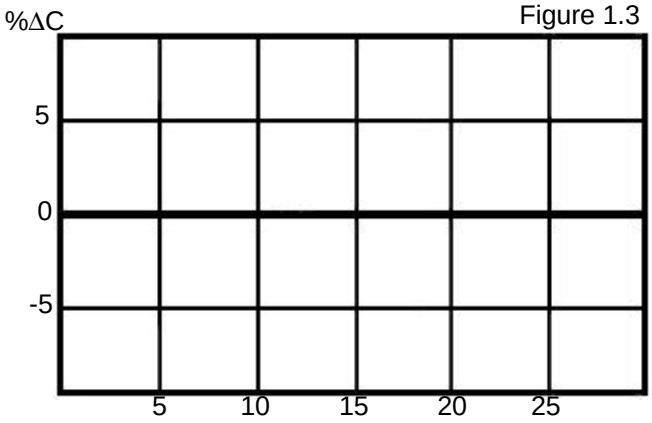
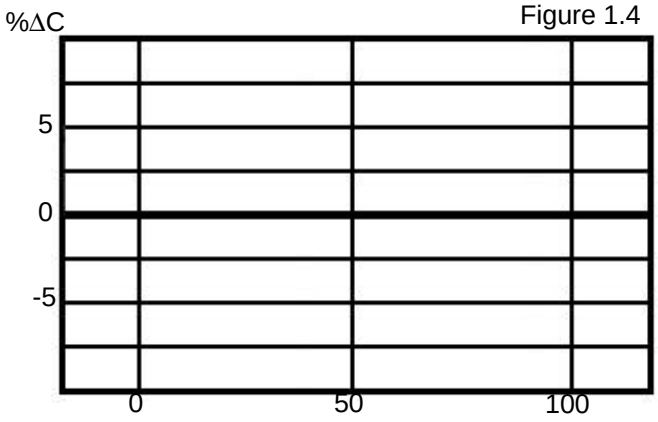


Figure 1.3



Capacitance vs. AC Testing Voltage

Figure 1.4



Bias-volts D.C.

Temperature Char./Cap. Value/rated voltage

Rated voltage (VDC):	100
Temperature characteristics:	0 ±30ppm/°C COG(NPO)
Capacitance tolerance:	±10%

Lead Configuration and Dimensions (mm):