

# CERAMIC CHIP CAPACITORS NPO (COG) DIELECTRIC

## LAUBE

### APPLICATION:

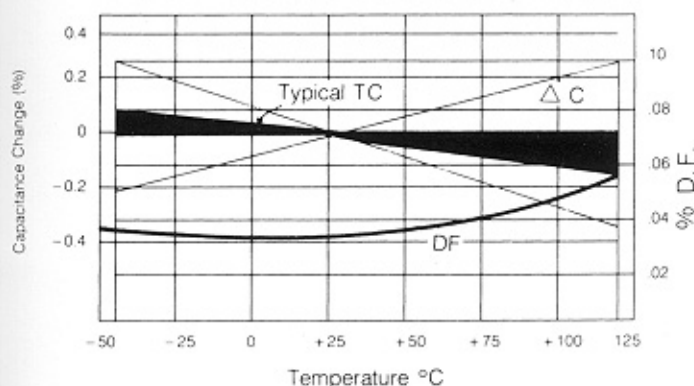
NPO (COG) dielectric properties; suited for precision circuits, requiring stable dielectric characteristics:

- \* Negligible dependence of capacitance and dissipation factor on time, voltage, and frequency
- \* Low-loss (High Q)
- \* Predictable linear temperature coefficient
- \* No piezoelectric behavior

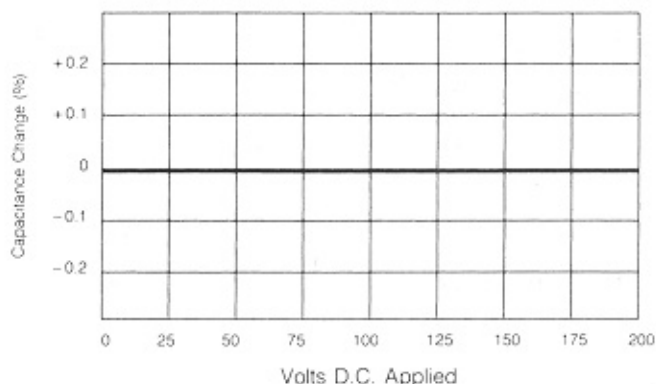
### General Specification

- Operating temperature rang  $-55^{\circ}\text{C} \sim +125^{\circ}\text{C}$
- Capacitance Range:  $0.47\text{pF} \sim 15000\text{pF}$
- Capacitance Tolerance:  $\pm 0.25\text{pF}$ ,  $\pm 0.5\text{pF}$ ,  $\pm 1\%$ ,  $\pm 2\%$ ,  $\pm 5\%$ ,  $\pm 10\%$
- Voltage Ratings: 6.3VDC, 10VDC, 16VDC, 25VDC, 50VDC, 100VDC, 200VDC, 250VDC, 500VDC, 1KV, 2KV, 3KV
- Dissipation Factor (1 KHz at 1 MHz, 1 Vrms,  $25^{\circ}\text{C}$ ) 0.15% Max
- Insulation Resistance (rated voltage applied at  $25^{\circ}\text{C}$ )  $100,000 \text{ M } \Omega$  or  $1,000 \text{ } \Omega$ -F min
- Dielectric strength  $> 2.5\text{X WV. DC}$ .

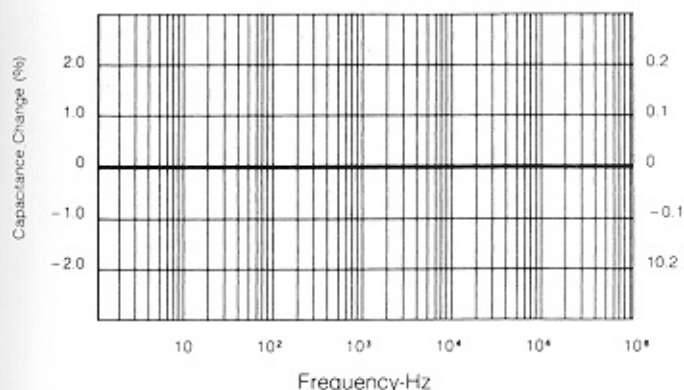
$\Delta C$ , D.F. VS. Temperature Coefficient



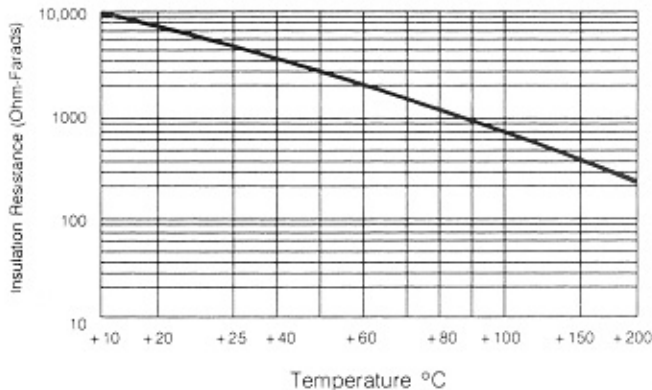
$\Delta C$ , VS. Voltage Coefficient



$\Delta C$ , D.E. VS. Frequency Coefficient



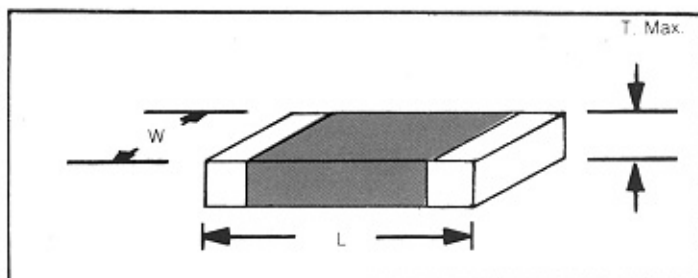
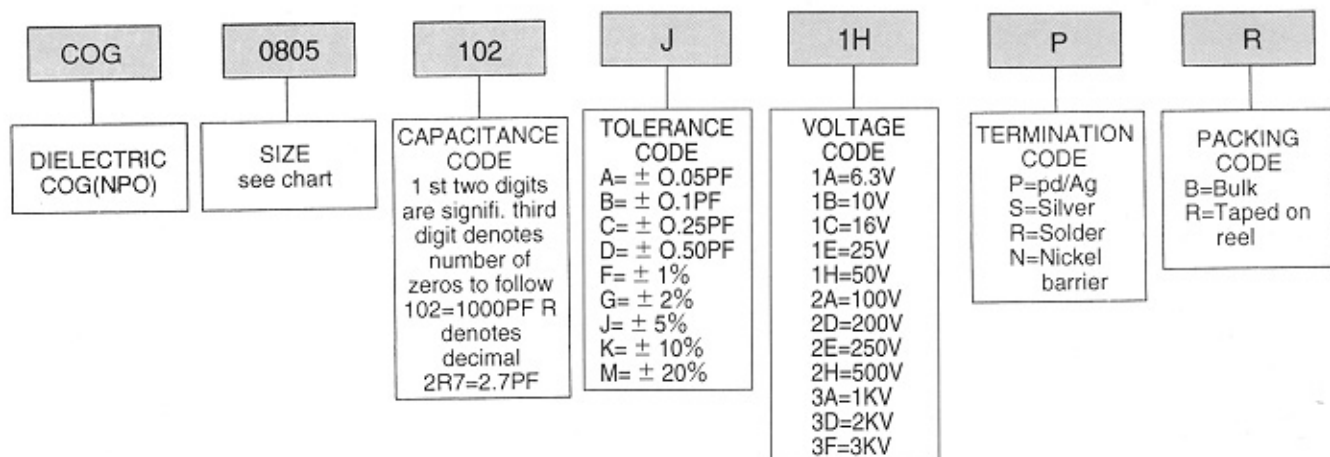
Insulation Resistance VS. Temp.



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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	50	0.47 ~ 220	A.B.C.D.F.G. (UNDER 10pF)	1.00 ± 0.05	0.50 ± 0.05	0.55
0603		0.5 ~ 680		1.600 ± 0.10	0.80 ± 0.10	0.80
0805	50	0.5 ~ 2700	F.G.J.K. (OVER 10pF)	2.00 ± 0.15	1.25 ± 0.15	1.25
1206		0.5 ~ 6800		32.0 ± 0.20	16.0 ± 0.20	1.27
1210		4700 ~ 8200	J.K.	32.0 ± 0.20	25.0 ± 0.20	1.65
1812		10000 ~ 15000	J.K.	4.50 ± 0.20	3.20 ± 0.20	1.65

### NOTES

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