

Temperature compensating ceramic capacitors are ideally suited for applications that demand controlled capacitance change with temperature variation, such as resonant circuit applications. The high capacitance in smaller packages with high reliability provides volumetric efficiency and is well-suited for automatic assembly (tape and reel).

These capacitors are suitable solutions for applications requiring:

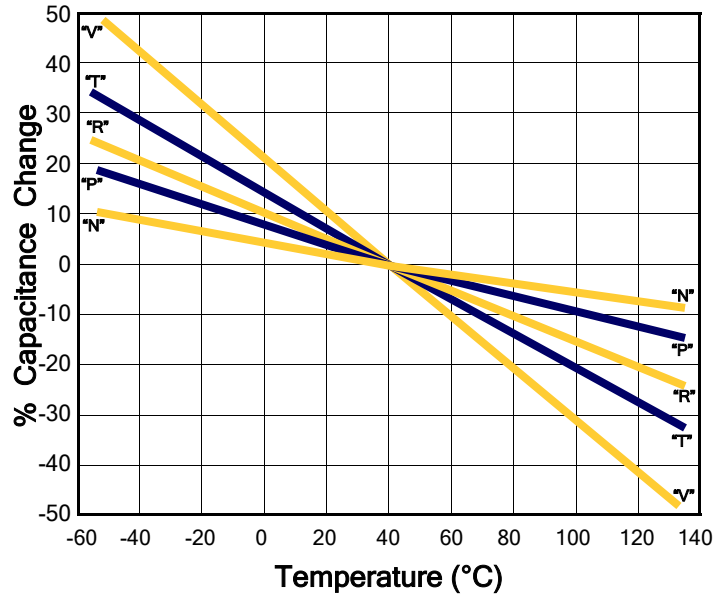
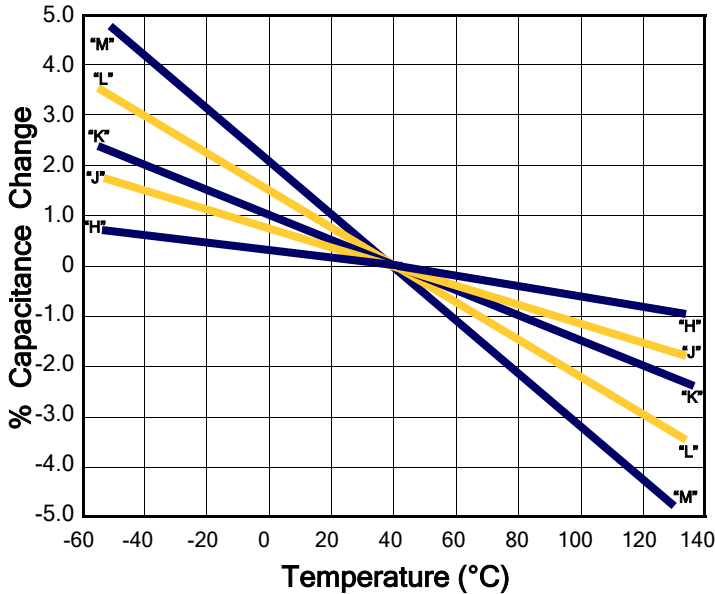
- High Q and frequency stability with excellent retrace characteristics.
- Very predictable temperature coefficients.
- Capacitors unaffected by voltage, frequency, or time.
- A dielectric material that is not ferro-electric.
- The most stable capacitor type available.



Dielectric Specifications		Mechanical Dimensions In Inches (millimeters)				
TEMPERATURE COEFFICIENT	Refer to Table Below	Case Size	0402	0603	0805	1206
OPERATING TEMPERATURE RANGE	-55°C to 125°C	Length (L)	.040±.004 (1.02±.10)	.060±.006 (1.57±.15)	.080±.008 (2.03±.2)	.120±.006 (1.02±.15)
INSULATION RESISTANCE	Values to 470pF: ≥10 ⁶ Megohms at WVDC, 25°C Values from 470 to 10,000pF: ≥10 ⁵ Megohms at WVDC, 25°C	Width (W)	.020±.004 (.51±.10)	.032±.006 (.81±.15)	.050±.008 (1.02±.10)	.060±.006 (1.02±.15)
DIELECTRIC STRENGTH	≥2.5 times WVDC, 50 mA maximum	Thickness (T)	.020±.004 (.51±.10)	Max: .035 (Max: .889)	.040±.006 (1.02±.15)	.040±.010 (1.02±.25)
TESTING PARAMETERS	1 KHz ±50 KHz at 1.0 Vrms ±0.20 Vrms and +25°C	Bandwidth (bw)	.010±.006 (.25±.15)	.014±.006 (.36±.15)	.015 nom. (.38 nom)	.030 nom (.76 nom)
ENVIRONMENTAL	Will meet or exceed applicable performance characteristics of MIL-PRF-55681					

ORDERING INFORMATION							
Case Size	Dielectric	Capacitance	Tolerance	Voltage	Termination	Packaging	Hi-Reli Testing
0805	N	101	J	101	SN	T	- A
0402 0603 0805 1206	H: N080 J: N150 K: N220 L: N330 M: N470 N: N750 P: N1500 R: N2200 T: N3300 V: N4700 W: N5600	First 2 digits are Significant; Third digit indicates number of Zeros Examples: 201 = 200pF 2R2 = 2.2pF	B ±0.10pF C ±0.25pF D ±0.50pF F ±1% G ±2% J ±5% K ±10% M ±20%	First 2 digits are Significant; Third digit indicates number of Zeros Examples: 201 = 200V 151 = 150V 202 = 2000V	P Palladium Silver (RoHS Compliant) S Solder Plated Over Nickel SN Tin over Nickel Plated (RoHS Compliant) G Gold over Nickel Plated (RoHS Compliant)	T Tape and Reel	(Optional) A = Group A B = Group B C = Group C H = Special Tested and Screened

Temperature Compensating Curves



Capacitance Range Table

Description	0402	0603	0805	1206
H	0.5pF to 82pF	0.5pF to 150pF	4.7pF to 390pF	10pF to 680pF
J	0.5pF to 82pF	0.5pF to 150pF	4.7pF to 390pF	10pF to 680pF
K	0.5pF to 100pF	0.5pF to 220pF	4.7pF to 470pF	10pF to 820pF
L	0.5pF to 100pF	0.5pF to 220pF	4.7pF to 470pF	10pF to 820pF
M	0.5pF to 120pF	0.5pF to 270pF	4.7pF to 560pF	10pF to 1000pF
N	0.5pF to 150pF	0.5pF to 330pF	4.7pF to 680pF	10pF to 1200pF
P	---	1.0pF to 470pF	4.7pF to 1000pF	10pF to 1800pF
R	---	1.0pF to 680pF	4.7pF to 1200pF	10pF to 2200pF
T	---	1.5pF to 820pF	4.7pF to 2200pF	10pF to 3900pF
V	---	2.2pF to 1800pF	4.7pF to 4700pF	10pF to 5600pF
W	---	2.2pF to 2200pF	4.7pF to 5600pF	10pF to 10000pF