RoHs Compliant

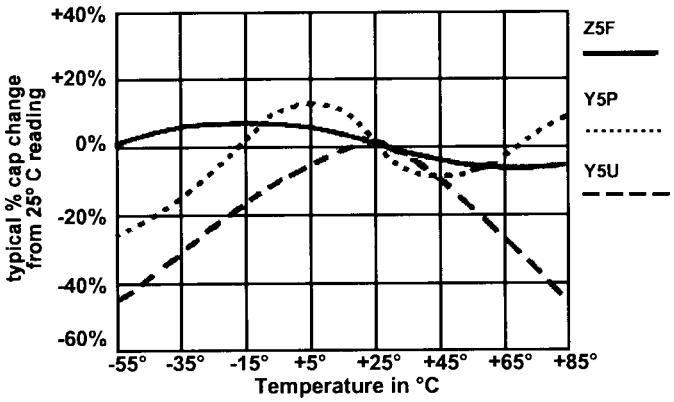
PRO-CAP CERAMIC CAPACITORS are designed and produced to offer the user a high capacitance, small size unit. The wide selection of temperature characteristics and voltage ratings, all built with a rugged environmental coating, allows the user a wider choice for a particular application. Termination: 100% tin coated copper wire.

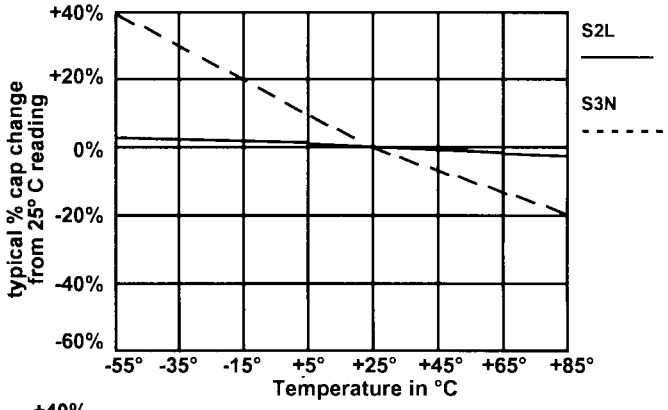
SPECIFICATIONS

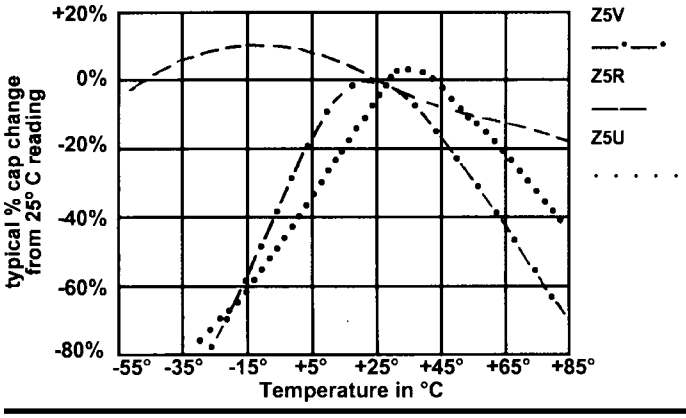
- **Temperature Characteristics:** See table and curves.
- **Operating Temperature:** -55°C to +85°C.
- **Test Voltage:** 2.5 times working voltage for 1 second.
- **Insulation Resistance:**
  7,500 Megohms or an RC product of 75-ohms F, whichever is less.
  RC product of .04-ohms F for 12VDCW Y5T.
  RC product of .1-ohm F for 16VDCW Y5T.
  10,000 Megohms for NPO.
- **Q (Ratio of Reactance to Equivalent Series Resistance):**
  Capacitance ≤ 30 pf Q ≥ 400 + 20 x CPf
  Capacitance > 30 pf Q ≥ 1000
- **Dissipation Factor:**
  For Z5F, Z5R, Z5U, Y5P (@ 1KC and 25°C) 2.5%
  For Z5V 5% For S2L, S3N 0.6%
  For Y5T 8% For NPO, N750, N1500 0.2%
- **Encapsulation:** Phenolic coated, wax impregnated.
- **Marking:** Value, Working Voltage, Tolerance, Temperature Coefficient as Space Permits

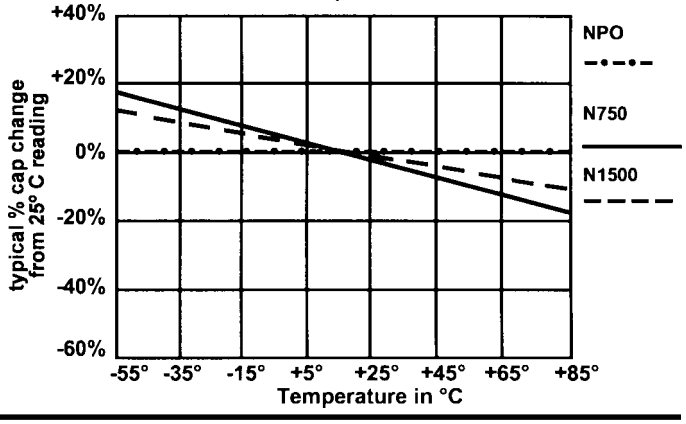
Temperature Characteristics

Type	Temp Range (°C)	Max Change in Capacitance
NPO	-55 - +85	0 ± 60 ppm /°C
N750	-55 - +85	-750 ± 130 ppm /°C
N1500	-55 - +85	-1500 ± 250 ppm /°C
S2L	-55 - +85	N330 ± 500 ppm /°C
S3N	-55 - +85	N3300 ± 2500 ppm /°C
Y5F	-30 - +85	+7.50%
Z5F	+10 - +85	+7.50%
Y5P	-30 - +85	+10%
Z5R	+10 - +85	+15%
Z5T	+10 - +85	+22% -33%
Y5U	-30 - +85	+22% -56%
Z5U	+10 - +85	+22% -56%
Z5V	+10 - +85	+22% -82%





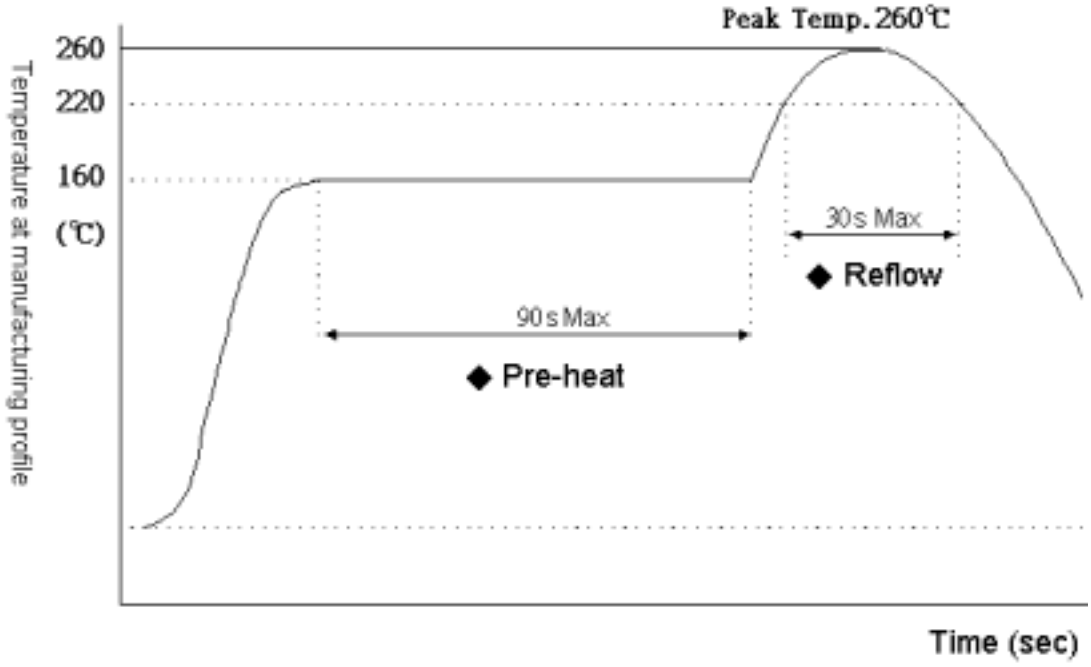




Soldering Profile

Disc Ceramic Capacitor (Lead free)

- **Soldering Heat Resistance as below Temperature profile.**
- **Solder Iron 400℃ 4~5sec**
- **Solderability 235℃, 3±1sec, 95% coverage min.**



- ◆ **Pre-heating shall be done less than +150℃ within 90 seconds**
- ◆ **The temperature at capacitor top shall not exceed +260℃**
- ◆ **The duration of over +220℃ temperature at component top shall not exceed 30 seconds**
- ◆ **The standard temperature profile differs by each reflow method**

If components are subject to the conditions beyond the allowable range of reflow please contact us.