

# HIGH TEMPERATURE CERAMIC CAPACITORS

Consult Factory for Requirements Above 250°C

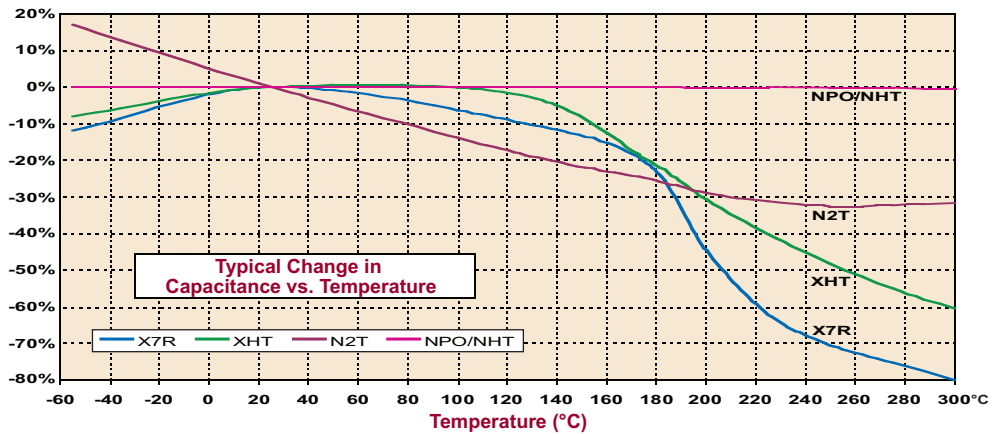
## DIELECTRIC CHARACTERISTICS

\* Contact factory regarding NPQ & N2T dielectric

| CHARACTERISTICS                                  | NPO/NHT/NPQ/N2T* DIELECTRIC   | XHT DIELECTRIC   | X7R DIELECTRIC   |
|--|---|--|--|
| <b>OPERATING TEMPERATURE RANGE</b>               | -55°C to 500°C+<br>N2T (125°C Max)  | -55°C to 250°C+  | -55°C to 250°C+  |
| <b>TEMPERATURE COEFFICIENT UP TO 200°C</b>       | NPO/NHT/NPQ: $0 \pm 30$ ppm/°C<br>N2T: -55°C to 25°C: -3330 ppm/°C max. change, no min.<br>25°C to 125°C: -2700 ppm/°C max. change, no min. | +15 - 32% $\Delta$ °C Typical  | +15 - 45% $\Delta$ °C Typical  |
| <b>INSULATION RESISTANCE @ 25°C @ 200°C</b>      | >100 G $\Omega$ or >1000 $\Omega$ F<br>>1 G $\Omega$ or >10 $\Omega$ F  | >100 G $\Omega$ or >1000 $\Omega$ F<br>>1 G $\Omega$ or >10 $\Omega$ F                     | >100 G $\Omega$ or >1000 $\Omega$ F<br>>1 G $\Omega$ or >10 $\Omega$ F                     |
| <b>DIELECTRIC WITHSTANDING VOLTAGE</b>           | DWV tested at 250% rated voltage except 500V rated parts are tested at 150% rated voltage.  | DWV tested at 250% rated voltage except 500V rated parts are tested at 150% rated voltage. | DWV tested at 250% rated voltage except 500V rated parts are tested at 150% rated voltage. |
| <b>DISSIPATION FACTOR @ 25°C VOLTAGE RATING:</b> | <b>NPO/NHT/NPQ/N2T* DIELECTRIC</b>  | <b>XHT DIELECTRIC</b>  | <b>X7R DIELECTRIC</b>  |
| 10 VDC   | .15%  | 5.0%   | 7.5%   |
| 16/25 VDC  | .15%  | 3.5%   | 5.0%   |
| 50 VDC   | .15%  | 2.5%   | 3.5%   |
| >50 VDC  | .15%  | 2.5%   | 2.5%   |

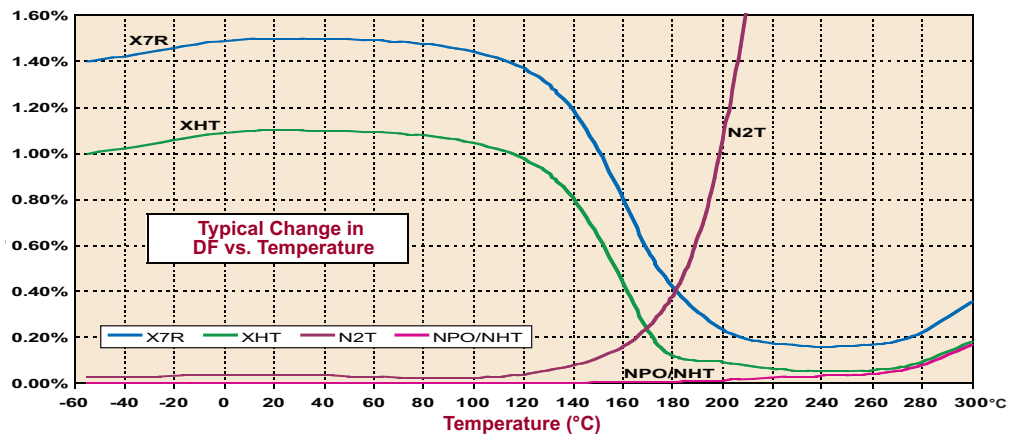
### TEMPERATURE COEFFICIENT

Tested at 1VACRMS 1KHz  
Capacitance Change



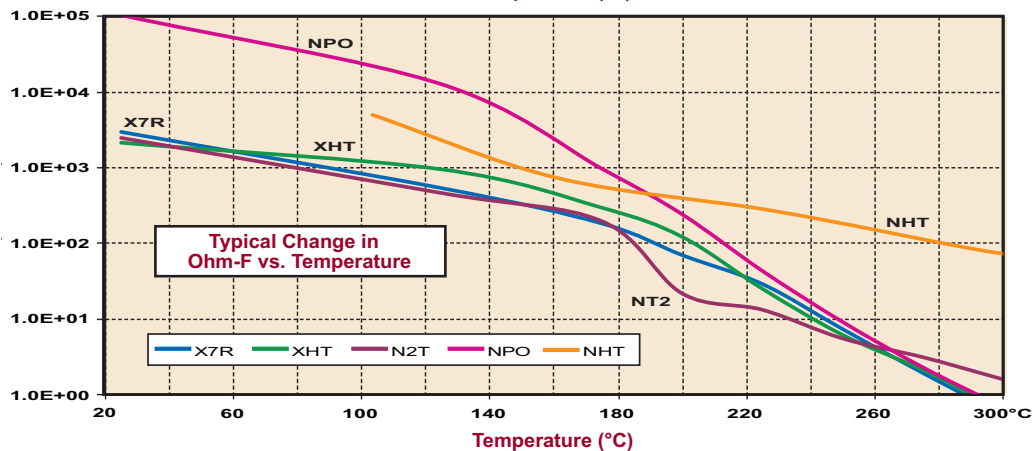
### DISSIPATION FACTOR

Percentage Change



### INSULATION RESISTANCE

Ohm-F

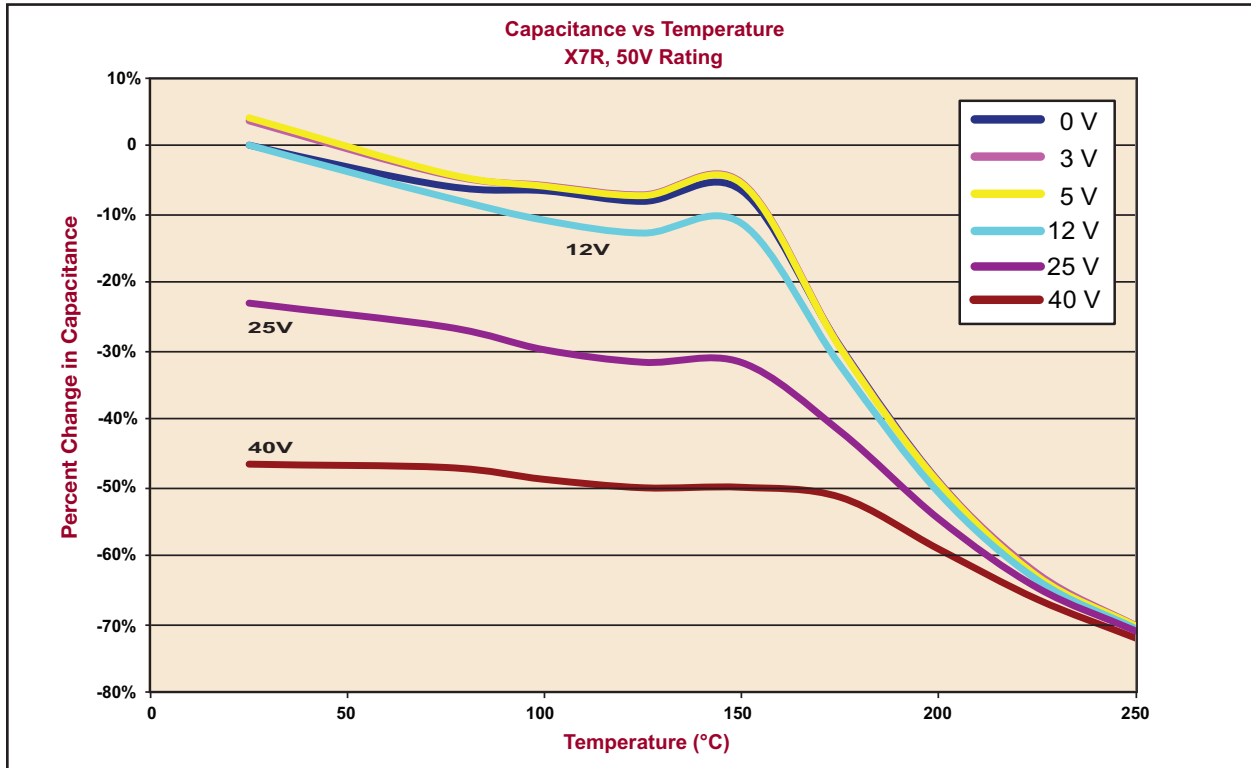


# HIGH TEMPERATURE CERAMIC CAPACITORS

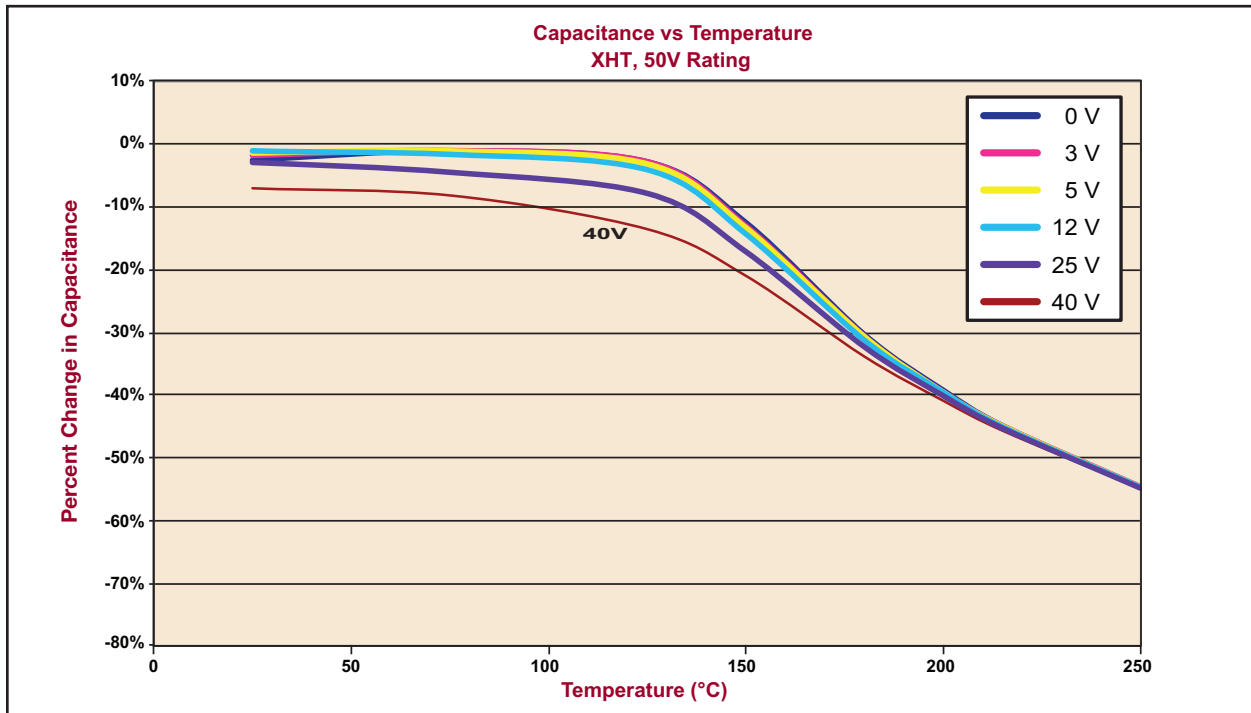
Consult Factory for Requirements Above 250°C

## DIELECTRIC CHARACTERISTICS

### TYPICAL VOLTAGE TEMPERATURE COEFFICIENT (X7R)



### TYPICAL VOLTAGE TEMPERATURE COEFFICIENT (XHT)



PRESIDIO COMPONENTS, INC.

7169 Construction Court, San Diego, CA 92121 USA • Tel: 858-578-9390 • Fax: 858-578-6225  
www.presidiocomponents.com • HT@presidiocomponents.com