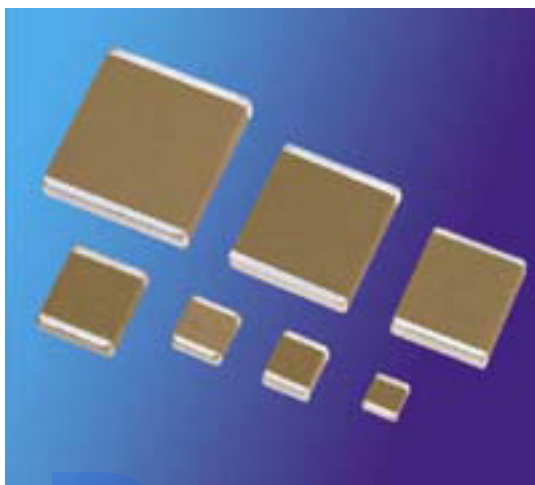


## High Temperature SMT Capacitors 200°C



### KEY FEATURES:

- For Use at Temperatures Up to 200°C
- Rated Working Voltages from 50V to 200V
- MLC Designs Utilizing Military Grade Ceramics
- Custom Sizes, Values, and Voltages Available

### APPLICATIONS:

- For Use in High Temperature Applications, Such as:
  - Oil Well Logging (Downhole)
  - Geophysical Probes
  - Jet Engine Controls

Datasheet.Live



## Capacitance / Voltage Selection

| Case Size  | NPO Max Capacitance |               |               | X7R Max Capacitance |               |               |
|------------|---------------------|---------------|---------------|---------------------|---------------|---------------|
|            | 50V                 | 100V          | 200V          | 50V                 | 100V          | 200V          |
| T14 / 0603 | 330 pF              | 220 pF        | 120 pF        | 5600 pF             | 3900 pF       | 2200 pF       |
| T15 / 0805 | 1500 pF             | 1000 pF       | 680 pF        | 0.027 $\mu$ F       | 0.018 $\mu$ F | 0.010 $\mu$ F |
| T18 / 1206 | 3300 pF             | 2200 pF       | 1500 pF       | 0.056 $\mu$ F       | 0.047 $\mu$ F | 0.023 $\mu$ F |
| T41 / 1210 | 5600 pF             | 4700 pF       | 3900 pF       | 0.120 $\mu$ F       | 0.100 $\mu$ F | 0.068 $\mu$ F |
| T43 / 1812 | 0.012 $\mu$ F       | 0.010 $\mu$ F | 8200 pF       | 0.270 $\mu$ F       | 0.220 $\mu$ F | 0.150 $\mu$ F |
| T49 / 1825 | 0.027 $\mu$ F       | 0.022 $\mu$ F | 0.018 $\mu$ F | 0.560 $\mu$ F       | 0.470 $\mu$ F | 0.290 $\mu$ F |
| T48 / 2225 | 0.039 $\mu$ F       | 0.033 $\mu$ F | 0.022 $\mu$ F | 0.820 $\mu$ F       | 0.680 $\mu$ F | 0.470 $\mu$ F |

## Dielectric Characteristics

|                                     | NPO Dielectric  | X7R Dielectric   |
|-------------------------------------|---|--|
| <b>Temperature Coefficient:</b>     | 0 $\pm$ 30 ppm, -55 to 125°C                                      | 0 $\pm$ 15%, -55 to 125°C  |
| <b>Cap Drop at 200C</b>             | minus 0.5% max  | minus 45% max  |
| <b>Dissipation Factor:</b>          | .001 (0.1%) max, 1Khz, 25°C                                       | .025 (2.5%) max, 1KHz, 25°C  |
| <b>Insulation Resistance @ 25C</b>  | 1000 $\Omega$ F or 100 G $\Omega$ , whichever is less @ 25C, WVDC | 1000 $\Omega$ F or 100 G $\Omega$ , whichever is less @ 25°C, WVDC |
| <b>Insulation Resistance @ 200C</b> | 1 $\Omega$ F or 100 M $\Omega$ , whichever is less @200°C, WVDC   | 1 $\Omega$ F or 100 M $\Omega$ , whichever is less @ 200°C, WVDC   |
| <b>Dielectric Strength:</b>         | 2.5 X WVDC, 25°C, 50 mA max                                       | 2.5 X WVDC, 25°C, 50 mA max  |
| <b>Test Parameters:</b>             | 1Khz $\pm$ 50Hz, 1.0 $\pm$ 0.2 VRMS, 25°C                         | 1Khz $\pm$ 50Hz, 1.0 $\pm$ 0.2 VRMS, 25°C                          |

## Mechanical Characteristics

| Case Size  | T (max) |       | W ( 10%) |       | L ( 10%) |       | E/B  |               |
|------------|---------|-------|----------|-------|----------|-------|------|---------------|
|            | mm.     | in.   | mm.      | in.   | mm.      | in.   | mm.  | in.           |
| T14 / 0603 | 0.89    | 0.035 | 0.81     | 0.032 | 1.6      | 0.063 | 0.25 | 0.010 ± .005  |
| T15 / 0805 | 1.27    | 0.050 | 1.27     | 0.050 | 2.03     | 0.080 | 0.51 | 0.020 ± 0.010 |
| T18 / 1206 | 1.4     | 0.055 | 1.57     | 0.062 | 3.18     | 0.125 | 0.51 | 0.020 ± 0.010 |
| T41 / 1210 | 2.03    | 0.080 | 2.41     | 0.095 | 3.18     | 0.125 | 0.51 | 0.020 ± 0.010 |
| T43 / 1812 | 2.79    | 0.110 | 3.18     | 0.125 | 4.45     | 0.175 | 0.64 | 0.025 ± 0.015 |
| T49 / 1825 | 3.56    | 0.140 | 6.35     | 0.250 | 4.57     | 0.180 | 0.64 | 0.025 ± 0.015 |
| T48 / 2225 | 3.81    | 0.150 | 6.35     | 0.250 | 5.72     | 0.225 | 0.64 | 0.025 ± 0.015 |





# How to Order

