

## TS15- Ceramic disk capacitor

### Class I- Temperature compensation

Linear temperature coefficient of capacitance  
 High stability of capacitance.  
 Low loss at wide range of frequency.



### Specification

|                             |  |
|-----------------------------|--|
| OPERATING TEMPERATURE RANGE | -25°C TO +85°C   |
| RATED WORKING VOLTAGE       | DC 50V, 500V   |
| TEST VOLTAGE                | 3 times of the rated voltage   |
| CAPACITANCE                 | Within the tolerance at 1 MHz, 1±0.2 Vrms. 25 °C   |
| Q FACTOR                    | At 1 MHz. 1±0.2 Vrms. 25 °C<br>C≥30pF .....Q≥1,000<br>C<30pF .....Q≥400+20□ (C: Rated capacitance) |
| INSULATION RESISTANCE       | 10,000 MΩmin.  |

| Rated Volt. (VDC) | Temp. Char.                | Capacitance |  | Dimensions (mm) |       |     |
|-------------------|----------------------------|-------------|--|-----------------|-------|-----|
|                   |                            | Range (pF)  | Tolerance  | D Ø max         | T max | F   |
| 50                | CH<br>0±60 PPM/□<br>(NPO)  | 0.5 ~ 47    | ±0.25pF &<br>±0.5pF<br>(Under<br>10pF)<br>±5% &<br>±10%<br>(Over 10pF) | 5.5             | 3.5   | 5.0 |
|                   |                            | 0.5 ~ 47    |  | 6.5             |       |     |
|                   |                            | 82 ~ 100    |  | 7.5             |       |     |
|                   |                            | 120 ~ 150   |  | 8.5             |       |     |
|                   |                            | 180 ~ 270   |  | 10.5            |       |     |
|                   |                            | 300 ~ 390   |  | 12.5            |       |     |
| 50                | SL<br>+350 ~<br>-1000PPM/□ | 10 ~ 120    | ±5%<br>&<br>±10%   | 5.5             | 3.5   | 5.0 |
|                   |                            | 150 ~ 240   |  | 6.5             |       |     |
|                   |                            | 270 ~ 330   |  | 7.5             |       |     |
|                   |                            | 360 ~ 470   |  | 8.5             |       |     |
|                   |                            | 500 ~ 820   |  | 10.5            |       |     |

### Class II- High dielectric constant

Large capacitance in small size  
 Non linear liner temperature coefficient of capacitance.

### Specification

|                       |   |
|-----------------------|---|
| RATED WORKING VOLTAGE | DC 50V, 500V                                    |
| TEST VOLTAGE          | 2.5 times of the rated voltage                  |
| CAPACITANCE           | Within the tolerance at 1 MHz, 1±0.2 Vrms. 25°C |

|                                    |   |
|------------------------------------|---|
| DISSIPATION FACTOR (tan $\delta$ ) | Y5P, Z5U : tan $\delta \leq 2.5\%$<br>Z5V : tan $\delta \leq 5\%$   |
| INSULATION RESISTANCE              | 10,000M $\Omega$ or 200M $\Omega$ $\mu$ F, whichever is the smaller |

| Rated Volt. (VDC) | Temp. Char.                  | Capacitance                |                            | Dimensions (mm)   |       |     |
|-------------------|------------------------------|----------------------------|----------------------------|-------------------|-------|-----|
|                   |                              | Range (pF)                 | Tolerance                  | D $\emptyset$ max | T max | F   |
| 50                | B<br>$\pm 10\%$              | 100 ~ 2000                 | $\pm 10\%$ &<br>$\pm 20\%$ | 5.5               | 3.5   | 5.0 |
|                   |                              | 2200 . 2700                |                            | 6.5               |       |     |
|                   |                              | 3000 . 3300                |                            | 7.5               |       |     |
|                   |                              | 3900 . 4700                |                            | 8.5               |       |     |
|                   |                              | 5600 . 6800<br>10000       |                            | 10.5              |       |     |
| 50                | E<br>+22 ~ -<br>56%<br>(Z5U) | 2200 . 3300<br>4700 . 5000 | $\pm 20\%$<br>&<br>+80-20% | 5.5               | 3.5   | 5.0 |
|                   |                              | 5600 . 6800<br>8200        |                            | 6.5               |       |     |
|                   |                              | 10000                      |                            | 7.5               |       |     |
|                   |                              | 12000 . 15000              |                            | 8.5               |       |     |
|                   |                              | 18000 . 20000<br>22000     |                            | 10.5              |       |     |
| 50                | F<br>+22 ~ -<br>82%<br>(Z5V) | 4700 . 5000                | +80-20%                    | 5.5               | 3.5   | 5.0 |
|                   |                              | 10000 . 15000              |                            | 6.5               |       |     |
|                   |                              | 18000 . 20000              |                            | 7.5               |       |     |
|                   |                              | 22000 . 30000              |                            | 8.5               |       |     |
|                   |                              | 33000 . 40000              |                            | 10.5              |       |     |