

# CERAMIC DISC CAPACITOR

# RC1

## FEATURES

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



## SPECIFICATIONS

|                             |                                                                                                                                                                |
|-----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| OPERATING TEMPERATURE RANGE | -25°C TO +85°C                                                                                                                                                 |
| RATED WORKING VOLTAGE       | DC 50V, 100V, 500V                                                                                                                                             |
| TEST VOLTAGE                | 3 times of the rated voltage                                                                                                                                   |
| CAPACITANCE                 | Within the tolerance at 1 MHz, 1±0.2 Vrms. 25°C Q<br>FACTOR At 1 MHz. 1±0.2 Vrms. 25°C<br>C≥30pF .....Q≥1,000<br>C<30pF .....Q≥400+20°C (C: Rated capacitance) |
| INSULATION RESISTANCE       | 10,000 MΩmin.                                                                                                                                                  |

| Rated Volt.(VDC) | Temp. Char.                 | Capacitance |                                                               | Dimensions (mm) |       |                 |
|------------------|-----------------------------|-------------|---------------------------------------------------------------|-----------------|-------|-----------------|
|                  |                             | Range (pF)  | Tolerance                                                     | DØmax           | T max | F±1mm           |
| 50               | CH<br>0±60 PPM/°C<br>(NPO)  | 0.5 ~ 47    | ±0.25pF & ±0.5pF<br>(Under 10pF)<br>±5% & ±10%<br>(Over 10pF) | 5.5             | 3.5   | 5.0, 5.08, 2.54 |
|                  |                             | 50 ~ 75     |                                                               | 6.5             |       |                 |
|                  |                             | 82 ~ 100    |                                                               | 7.5             |       |                 |
|                  |                             | 120 ~ 150   |                                                               | 8.5             |       |                 |
|                  |                             | 180 ~ 270   |                                                               | 10.5            |       |                 |
|                  |                             | 300 ~ 390   |                                                               | 12.5            |       | 5.0, 5.08, 2.54 |
| 50               | SL<br>+350 ~<br>-1000PPM/°C | 10 ~ 120    | ±5%<br>&<br>±10%                                              | 5.5             | 3.5   | 5.0, 5.08, 2.54 |
|                  |                             | 150 ~ 240   |                                                               | 6.5             |       |                 |
|                  |                             | 270 ~ 330   |                                                               | 7.5             |       |                 |
|                  |                             | 360 ~ 470   |                                                               | 8.5             |       |                 |
|                  |                             | 500 ~ 820   |                                                               | 10.5            |       |                 |

## CLASS II HIGH DIELECTRIC CONSTANT

## FEATURES

- Large capacitance in small sizes.
- Non liner temperature coefficient of capacitance.

## SPECIFICATIONS

|                            |                                                  |
|----------------------------|--------------------------------------------------|
| RATED WORKING VOLTAGE      | DC 50V, 100V, 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 δ) | Y5P, Z5U : tan δ ≤2.5%<br>Z5V : tan δ ≤5%        |
| INSULATION RESISTANCE      | 10,000M Ω or 200M Ω μF, whichever is the smaller |

| Rated Volt.(VDC) | Temp. Char.              | Capacitance   |                      | Dimensions (mm) |       |                 |
|------------------|--------------------------|---------------|----------------------|-----------------|-------|-----------------|
|                  |                          | Range (pF)    | Tolerance            | DØmax           | T max | F±1mm           |
| 50               | B<br>±10%<br>(Y5P)       | 100 ~ 2000    | ±10% & ±20%          | 5.5             | 3.5   | 5.0, 5.08, 2.54 |
|                  |                          | 2200 ~ 2700   |                      | 6.5             |       |                 |
|                  |                          | 3000 ~ 3300   |                      | 7.5             |       |                 |
|                  |                          | 3900 ~ 4700   |                      | 8.5             |       |                 |
|                  |                          | 5600 ~ 6800   |                      | 10.5            |       |                 |
|                  |                          | 10000         |                      |                 |       |                 |
| 50               | E<br>+22 ~ -56%<br>(Z5V) | 2200 ~ 3300   | ±20%<br>&<br>+80-20% | 5.5             | 3.5   | 5.0, 5.08, 2.54 |
|                  |                          | 4700 ~ 5000   |                      | 6.5             |       |                 |
|                  |                          | 5600 ~ 6800   |                      | 7.5             |       |                 |
|                  |                          | 8200          |                      | 8.5             |       |                 |
|                  |                          | 10000         |                      | 10.5            |       |                 |
|                  |                          | 12000 ~ 15000 |                      |                 |       |                 |
| 50               | F<br>+22 ~ -82%<br>(Z5V) | 18000 ~ 20000 | +80-20%              | 5.5             | 3.5   | 5.0, 5.08, 2.54 |
|                  |                          | 22000 ~ 30000 |                      | 6.5             |       |                 |
|                  |                          | 33000 ~ 40000 |                      | 7.5             |       |                 |
|                  |                          |               |                      | 8.5             |       |                 |
|                  |                          |               |                      | 10.5            |       |                 |
| 50               | F<br>+22 ~ -82%<br>(Y5V) | 4700 ~ 10000  | ±20%<br>&<br>+80-20% | 4.0 ~ 5.0       | 3.5   | 5.0, 5.08, 2.54 |
|                  |                          | 12000 ~ 20000 |                      | 6.0             |       |                 |
|                  |                          |               |                      | 7.0             |       |                 |
|                  |                          | 22000         |                      |                 |       |                 |