



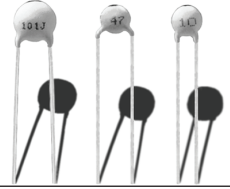
# Class I Ceramic Disc Capacitors (RoHS Compliant) CDR Series

## FEATURES

- Linear temperature coefficient of capacitance
- High stability of capacitance
- Low loss across a wide frequency range



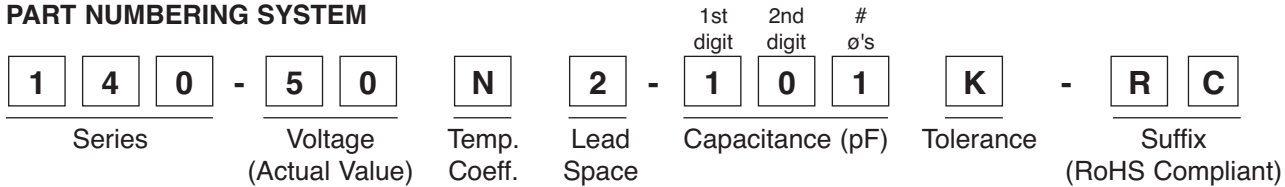
RoHS Compliant



## CHARACTERISTICS

| Item                         | Characteristics                                                                                                                                                                                                                                                                                                      |
|------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Operating Temperature Range  | -25°C ~ +85°C                                                                                                                                                                                                                                                                                                        |
| Capacitance Tolerance (min.) | Within the tolerance at 1MHz, 1~3Vrms, 25°C                                                                                                                                                                                                                                                                          |
| Working Voltage (WVDC)       | 50WV or 500WV                                                                                                                                                                                                                                                                                                        |
| Insulation Resistance        | 10,000MΩ min.                                                                                                                                                                                                                                                                                                        |
| Test Voltage                 | 3 x WVDC                                                                                                                                                                                                                                                                                                             |
| Life Test                    | At 2 x WVDC @85°C for 1000 hours @ 85°C, capacitors shall meet the following: the capacitance change for ≤30pF will be ≤±5% or ≤0.3pF; for >30pF the capacitance change will be ≤±3%. For ≤30pF Q ≥ 275 = 5/3C; for >30pF Q ≥ 350                                                                                    |
| Humidity Test                | At exposure in the ambient temperature of 40°C, and at 95% RH for 500 hours the capacitors shall meet the following after 24 hours exposure at room temperature: the capacitance change for ≤30pF will be ≤±5% or ≤0.3pF; for >30pF the capacitance change will be ≤±5%. For ≤30pF Q ≥ 275 = 5/3C; for >30pF Q ≥ 350 |

## PART NUMBERING SYSTEM



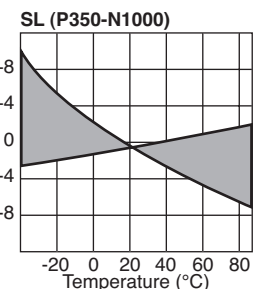
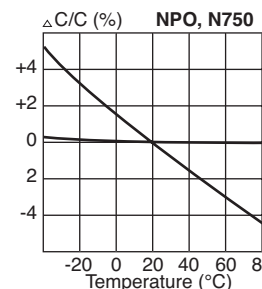
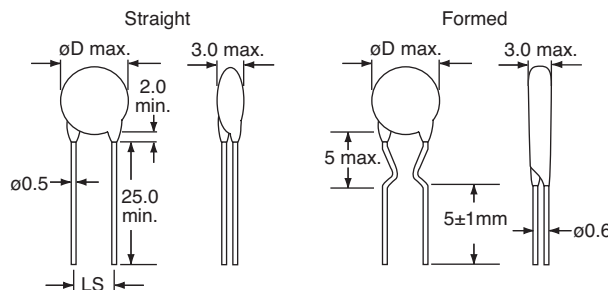
| Temp. Coeff. | Code     |
|--------------|----------|
| NPO          | <b>N</b> |
| N750         | <b>E</b> |
| SL           | <b>S</b> |

| Lead Space | Code     |
|------------|----------|
| 2.5mm      | <b>2</b> |
| 5.0mm      | <b>5</b> |

| Tolerance | Code     |
|-----------|----------|
| ±0.25pF   | <b>C</b> |
| ±5%       | <b>J</b> |
| ±10%      | <b>K</b> |

| Tolerance | Code     |
|-----------|----------|
| ±20%      | <b>M</b> |
| ±0.5pF    | <b>D</b> |
| +80/-20%  | <b>Z</b> |

## DIMENSIONS (mm), CAPACITANCE RANGES (pF), TYPICAL TEMPERATURE CHARACTERISTICS



| Dimensions |         | Working Voltage (WV); Temperature Coefficient; Capacitance Range (pF) |         |           |         |         |           |
|------------|---------|-----------------------------------------------------------------------|---------|-----------|---------|---------|-----------|
|            |         | 50/100                                                                |         |           | 500     |         |           |
| øD (mm)    | LS (mm) | NPO                                                                   | N750    | SL        | NPO     | N750    | SL        |
| 5          | 2.5/5.0 | 1 ~ 47                                                                | 22 ~ 47 | 50 ~ 150  | ---     | ---     | 39 ~ 100  |
| 6          | 2.5/5.0 | 56 ~ 68                                                               | ---     | 180 ~ 220 | 1-36    | 18 ~ 33 | 120 ~ 150 |
| 7.5        | 2.5/5.0 | 82 ~ 100                                                              | ---     | 250 ~ 330 | 39 ~ 82 | 39 ~ 68 | 180 ~ 220 |
| 8.5        | 2.5/5.0 | 120 ~ 150                                                             | ---     | 390 ~ 470 | ---     | ---     | 270 ~ 300 |
| 9.5        | 5.0     | 180 ~ 200                                                             | ---     | 500 ~ 680 | ---     | ---     | 300 ~ 390 |
| 10.5       | 5.0     | 220 ~ 270                                                             | ---     | 820       | 100     | ---     | 400 ~ 470 |
| 12.5       | 5.0     | 300 ~ 330                                                             | ---     | ---       | ---     | ---     | 560       |

