

HIGH VOLTAGE TYPE

FEATURES

- 2KV, 3KV AND 5KV VOLTAGE RATINGS
- HIGH PERFORMANCE AND RELIABILITY
- ECONOMICALLY PRICED
- AVAILABLE WITH FORMED LEADS
- TAPE PACKAGING OPTION FOR AUTOMATIC INSERTION

*See Part Number System for Details

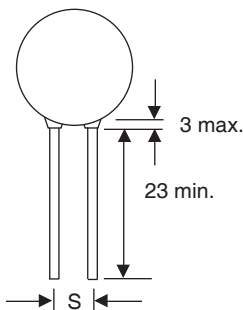


SPECIFICATIONS

| Temperature Characteristics | NPO | SL | N3300 | Y5P | Z5U | Z5V |
|--|--|---------------|-------------|-----------------------------|--------------------------|-------------|
| Operating Temperature Range | -30°C ~ +85°C | | | | +10°C ~ +85°C | |
| Capacitance Change Over Temperature Range | 0±30ppm | N330 ± 500ppm | -13% ~ +12% | ±10% | +22% ~ -56% | +22% ~ -82% |
| Dissipation Factor | 0.1% max. | | 0.3% max. | 2.5% max. | 5% max. | |
| Insulation Resistance | Minimum 10,000 Megohms | | | | | |
| Dielectric Withstanding Voltage (Test Voltage) | 2.5 Times Rated Voltage For Not Less Than 1 Second, 50mA Maximum | | | | | |
| Test Conditions | ≤1,000pF; 1MHz, 1.2Vrms Max., >1,000pF; 1KHz, 1.2Vrms Max. | | | 1KHz, 1.0V ±0.2Vrms Max. | 1KHz, 0.5V ±0.1Vrms Max. | |

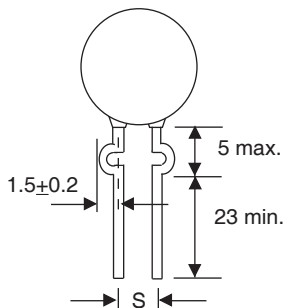
TEMPERATURE CHARACTERISTICS: See Class I and Class II Data Sheets

Standard



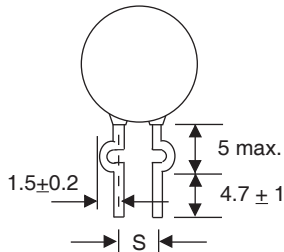
Voltage Ratings 4KVDC and Higher Have Resin Body Coating.

K Style



(BULK AND TAPED STYLES)

E Style



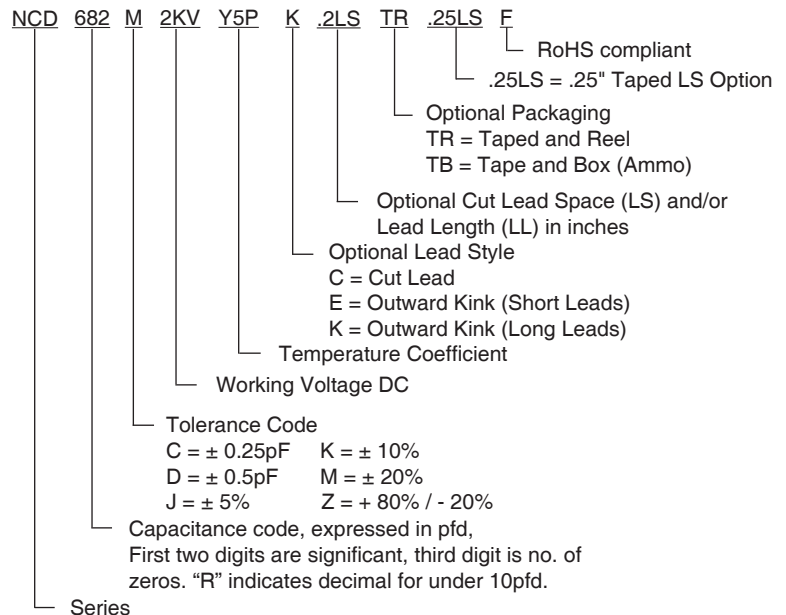
LEAD SPACING AND DIAMETER(mm)

| Voltage Rating | Lead Spacing - S Bulk ±0.8mm | Lead Spacing - S Tape & Reel/Tape & Box | Lead Diameter ±0.05 |
|----------------|--|---|---|
| 2KVdc | (7~10mm Dia.):6.35mm (12~22mm Dia.):9.5mm | (7~10mm Dia.):6.35mm (12~22mm Dia.):9.5mm* | 0.6mm |
| 3KVdc | (7~10mm Dia.):6.35mm (12~22mm Dia.):9.5mm | (7~10mm Dia.):6.35mm (12~22mm Dia.):9.5mm* | (7~10mm Dia.):0.6mm (12~22mm Dia.):0.8mm |
| 5KVdc | (7~10mm Dia.):6.35mm (12~22mm Dia.):9.5mm | (7~10mm Dia.):6.35mm (12~22mm Dia.):9.5mm* | 0.8mm |

*All values are not available on tape. Consult factory for availability and leadspac options.

THICKNESS 5 ~ 7MM DEPENDENT ON CV

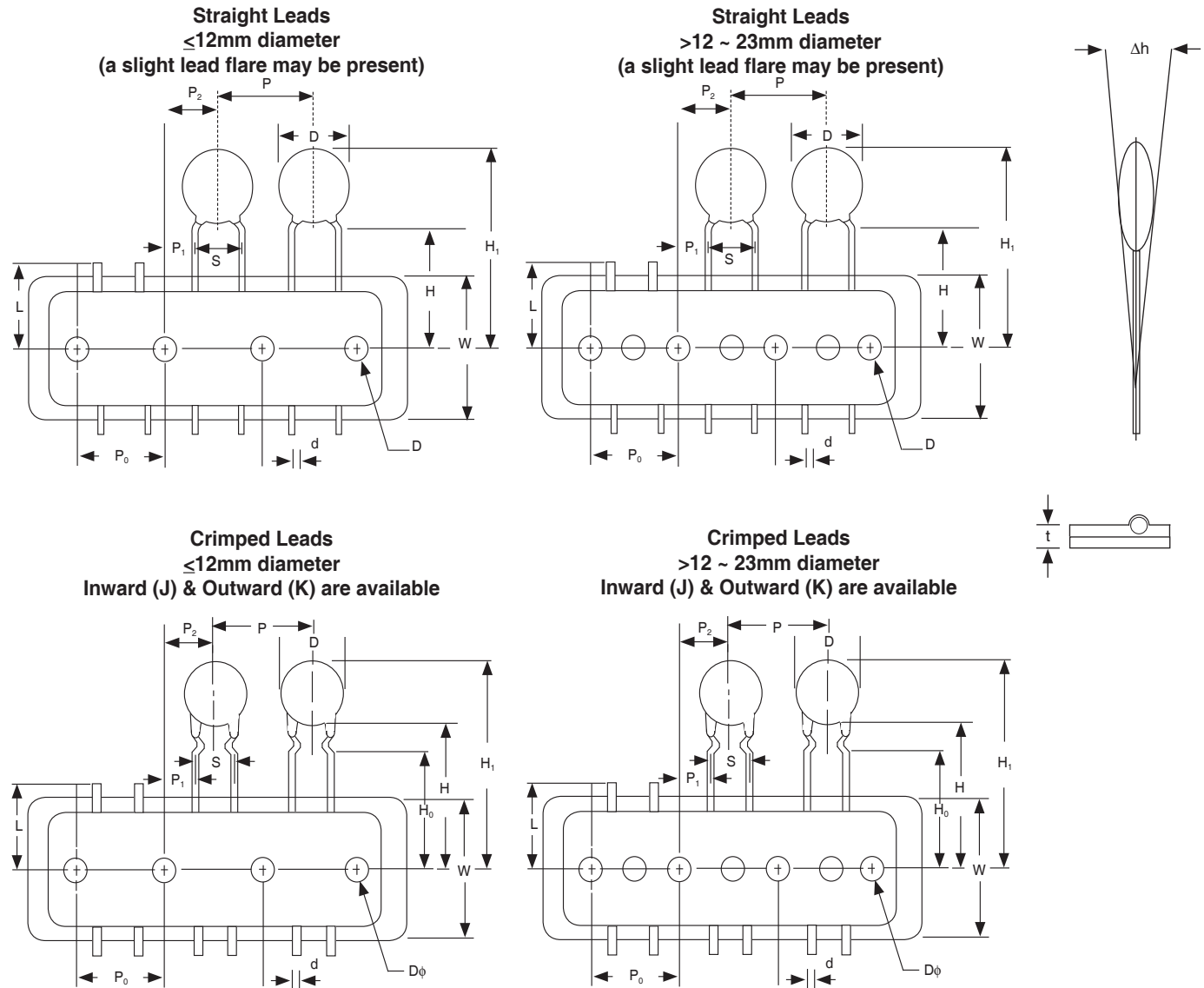
(thinner parts available by special order)



STANDARD PRODUCTS AND MAXIMUM DIAMETER (mm) BY T.C. AND VOLTAGE

| Cap. (pF) | NPO | | | SL | | | Y5P | | | Z5U | | | Z5V | | |
|--------------|-----------------------|----|----|----|----|----|-----|----|----|-----|----|----|-----|----|----|
| | Working Voltage (Vdc) | | | | | | | | | 2K | 3K | 5K | 2K | 3K | 5K |
| | 2K | 3K | 5K | 2K | 3K | 5K | 2K | 3K | 5K | 2K | 3K | 5K | 2K | 3K | 5K |
| 1.0 ~1.5 | 7 | 8 | 9 | 7 | 8 | 8 | | | | | | | | | |
| 18 ~ 27 | 8 | 9 | 12 | 7 | 8 | 8 | | | | | | | | | |
| 33 | 9 | 10 | 12 | 7 | 8 | 9 | | | | | | | | | |
| 39 | 9 | 10 | 14 | 7 | 8 | 9 | | | | | | | | | |
| 47 | 10 | 12 | 14 | 7 | 8 | 9 | | | | | | | | | |
| 68 | 12 | 12 | 16 | 8 | 9 | 10 | | | | | | | | | |
| 82 | 14 | 14 | 18 | 8 | 10 | 12 | | | | | | | | | |
| 100 | 14 | 16 | 18 | 9 | 10 | 12 | 7 | 8 | 8 | | | | | | |
| 120 | 16 | 16 | 22 | 9 | 12 | 12 | 7 | 8 | 8 | | | | | | |
| 150 | 16 | 18 | 22 | 10 | 12 | 14 | 7 | 8 | 8 | 8 | 8 | | | | |
| 180 | 18 | 20 | | 10 | 14 | 16 | 7 | 8 | 8 | 8 | 8 | | | | |
| 220 | 18 | 22 | | 12 | 14 | 16 | 7 | 8 | 8 | 8 | 8 | | | | |
| 270 | 20 | 22 | | 14 | 16 | 18 | 7 | 8 | 8 | 8 | 8 | | | | |
| 330 | 22 | | | 14 | 18 | 20 | 7 | 8 | 9 | 8 | 8 | | | | |
| 470 | | | | 16 | 18 | 22 | 7 | 8 | 10 | 8 | 8 | | | | |
| 680 | | | | 18 | 22 | | 7 | 9 | 12 | 8 | 9 | | | | |
| 820 | | | | 20 | | | 8 | 10 | 14 | 8 | 9 | | | | |
| 1000 | | | | 22 | | | 9 | 12 | 14 | 7 | 8 | 12 | 7 | 8 | 9 |
| 1500 | | | | | | | 10 | 12 | 16 | 8 | 9 | 16 | 7 | 8 | 10 |
| 2200 | | | | | | | 12 | 14 | 20 | 9 | 10 | 16 | 8 | 9 | 12 |
| 3300 | | | | | | | 14 | 16 | 24 | 12 | 12 | 18 | 9 | 10 | 14 |
| 4700 | | | | | | | 16 | 18 | 26 | 12 | 16 | 18 | 10 | 12 | 16 |
| 5600 | | | | | | | 18 | 20 | | 14 | 16 | 20 | 12 | 12 | 16 |
| 6800 | | | | | | | 20 | 22 | | 14 | 18 | 22 | 12 | 14 | 18 |
| 8200 | | | | | | | 22 | | | 16 | 18 | 24 | 14 | 14 | 18 |
| 10,000 | | | | | | | | | | 16 | 20 | | 14 | 16 | 20 |
| 12,000 | | | | | | | | | | 18 | 22 | | 16 | 18 | 22 |
| 15,000 | | | | | | | | | | 20 | | | 16 | 18 | 24 |
| 18,000 | | | | | | | | | | 22 | | | 18 | 20 | |
| 22,000 | | | | | | | | | | | | | 18 | 22 | |
| 33,000 | | | | | | | | | | | | | 22 | | |

DIMENSIONS (mm)



| Symbol | D max. | d | P | P ₀ | P ₁ | P ₂ | S | H | H ₀ | H ₁ | D _φ | W | L | t | Δh |
|-----------|----------|----------------|------|----------------|----------------|----------------|------|------|-------------------------------------|-----------------|----------------|------|-----------|------|------|
| Value | ≤ 12 | 0.6 | 12.7 | 12.7 | 5.1 | 6.35 | 2.5 | 20.0 | Applies to Parts with Crimped Leads | 32.25 max. | 4.0 | 18.0 | 11.0 max. | 0.6 | 0.0 |
| | | | | | 3.85 | | 5.0 | | | H max. + D max. | | | | | |
| | | | | | 3.18 | | 6.35 | | | | | | | | |
| | >12 ~ 23 | 0.6 or 0.8* | 25.4 | 8.95 | 12.7 | 7.5 | 16.0 | --- | ±0.2 | ±0.5 | --- | ±0.3 | ±2.0 | | |
| | | | | | 7.7 | | 9.5 | | | | | | | | |
| Tolerance | ≤ 12 | +0.06 -0.05 | ±1.0 | ±0.2 | ±0.7 | ±1.0 | +0.8 | +1.5 | ±0.5 | --- | ±0.2 | ±0.5 | --- | ±0.3 | ±2.0 |
| | >12 ~ 23 | | | | ±1.5 | | ±1.3 | -0.2 | | | | | | | |

*Lead diameter dependent on capacitor diameter. Contact NIC for details