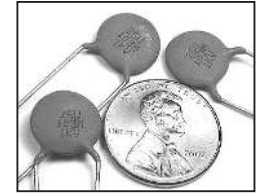


GENERAL PURPOSE, HI-K
(DIELECTRIC CONSTANT Class II/III) TYPE



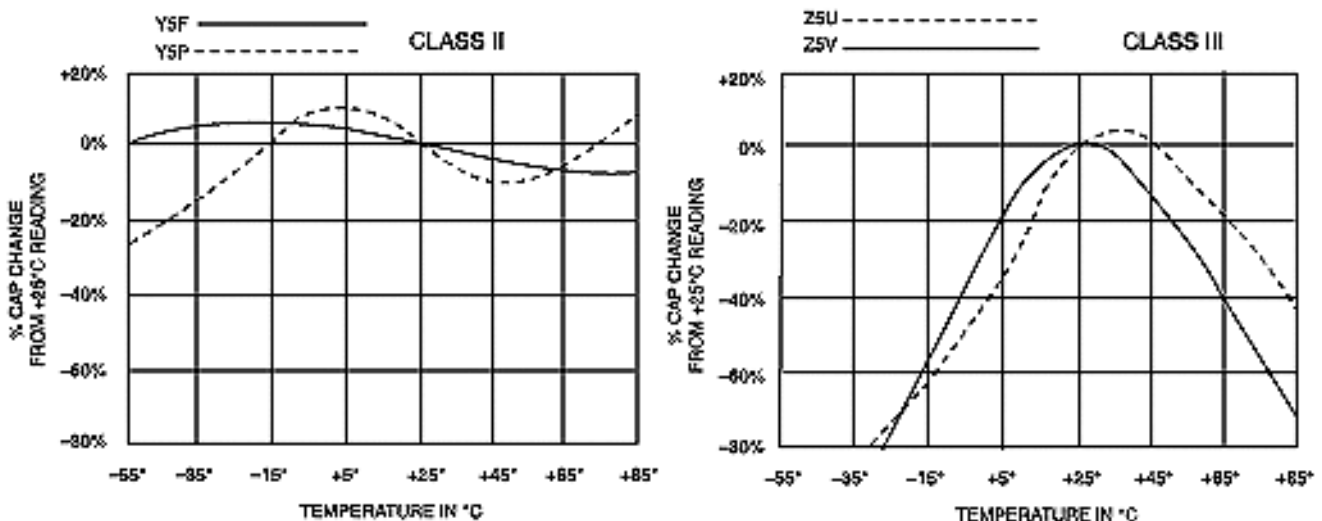
FEATURES

- WIDE SELECTION OF TEMPERATURE CHARACTERISTICS
- HIGH INSULATION RESISTANCE
- EXCELLENT HIGH FREQUENCY CHARACTERISTICS *See Part Number System for Details
- ECONOMICALLY PRICED
- AVAILABLE WITH FORMED LEADS AND ON TAPE FOR AUTOMATIC INSERTION

SPECIFICATIONS

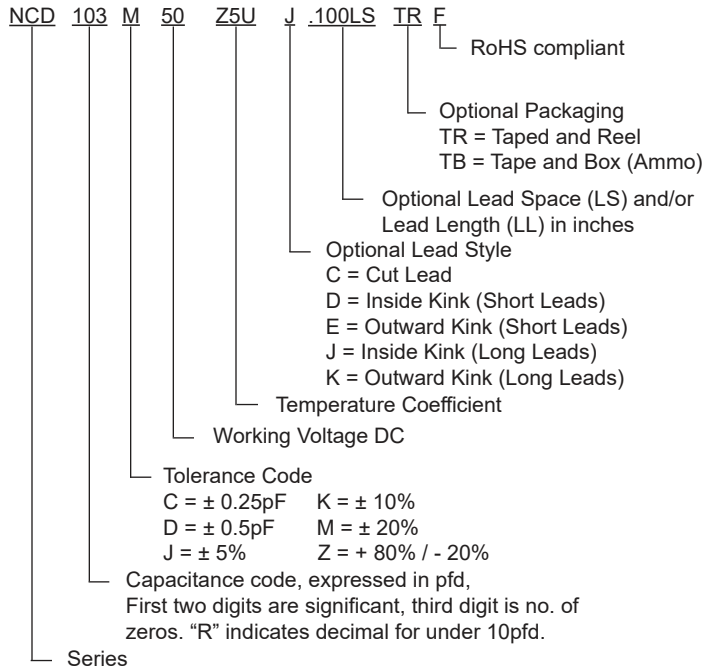
| Temperature Characteristics | | Y5F | Y5P | Z5U | Z5V |
|--|-------------|--|----------------|----------------------|-----------------|
| Operating Temperature Range | | -30°C ~ +85°C | -30°C ~ +85°C | +10°C ~ +85°C | +10°C ~ +85°C |
| Capacitance Range | | 100pF ~ 0.0039μF | 100pF ~ 0.01μF | 0.001μF ~ 0.1μF | 0.001μF ~ 0.1μF |
| Standard Tolerance | | ±10% (K) | ±10% (K) | ±20% (M) | +80%/-20% (Z) |
| Capacitance Change Over Temperature Range | | ±7.5% | ±10% | -55% ~ +22 | -82% ~ +22% |
| Dissipation Factor | | 2.5%* | 2.5%* | 5% | 5% |
| Insulation Resistance | | Minimum 10,000 Megohms | | | |
| Working Voltage Range | | 50Vdc ~ 1KVdc | | | |
| Dielectric Withstanding Voltage (Test Voltage) | | 2.5 Times Rated Voltage For Not Less Than 1 Second, 50mA Maximum | | | |
| Load Life Test @ 85°C 1,000 Hours | Cap. Change | ±10% | ±10% | ±20% | ±30% |
| | D.F. (max.) | 4% | 4% | 7.5% | 7.5% |
| | I.R. (min.) | 1,000 Megohms | | | |
| Test Conditions | | 1KHz, 1.0V ±0.2Vrms | | 1KHz, 0.5V ± 0.1Vrms | |

* Special low dissipation factor (1.0% max.) Y5F and Y5P dielectrics are also available. Contact NIC for availability.



Ceramic Disc Capacitors

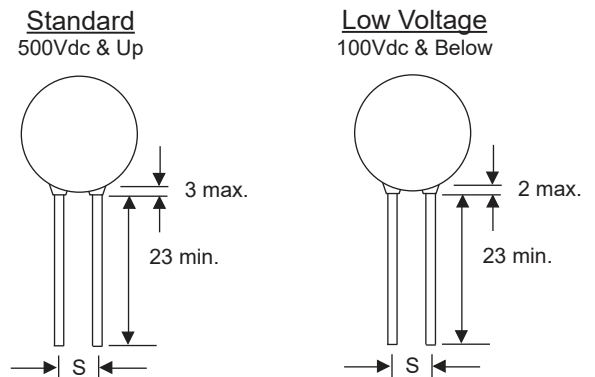
NCD Series Class II/III



| Lead Spacing (mm) - S | | | | |
|-----------------------|----------------|---------------|---|---|
| Body Diameter | Standard Bulk | Standard T&R | Optional Bulk mm (inches) | Optional T&R mm (inches) |
| 5 ~ 11 | 6.35 \pm 0.8 | 5.0 \pm 0.8 | 5.0 \pm 0.8 (0.200LS) | 2.5 \pm 0.8 (0.100LS) |
| ≥ 12 | 6.35 \pm 0.8 | 5.0 \pm 0.8 | 7.5 \pm 0.8 (0.295LS) 10.0 \pm 0.8 (0.395LS) | 7.5 \pm 0.8 (0.295LS) 10.0 \pm 0.8 (0.395LS) |

LEAD DIAMETER
0.6MM IS STANDARD

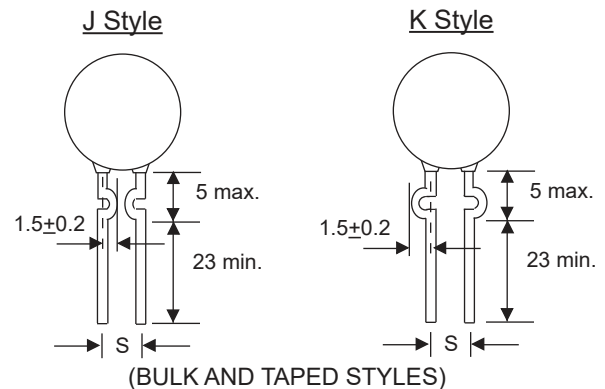
BODY THICKNESS
2 ~ 4MM DEPENDENT ON CV



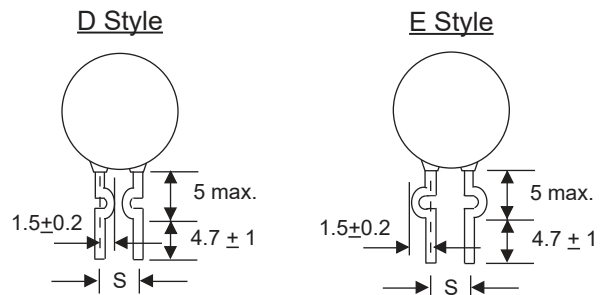
STANDARD PRODUCTS AND MAXIMUM DIAMETER (mm) BY T.C. AND VOLTAGE

| Cap. (pF/ μF) | Y5F/Y5P* | | | Z5U | | | Z5V | | |
|---------------------------|-----------------------|-----|-----|-----|-----|----|-----|-----|----|
| | Working Voltage (Vdc) | | | | | | | | |
| | 50 | 500 | 1K | 50 | 500 | 1K | 50 | 500 | 1K |
| 100~470pF | 6 | 6 | 6 | - | - | - | - | - | - |
| 560 | 6 | 6 | 6 | - | - | - | - | - | - |
| 680 | 6 | 6 | 7 | - | - | - | - | - | - |
| 750 | 6 | 6 | 7 | - | - | - | - | - | - |
| 820 | 6 | 6 | 7 | - | - | - | - | - | - |
| 0.001 μF | 6 | 7 | 7 | 6 | 6 | 6 | 5.5 | 6 | 6 |
| 0.0012 | 6 | 7 | 7/8 | 6 | 6 | 7 | 5.5 | 6 | 6 |
| 0.0015 | 6 | 8 | 8 | 6 | 8 | 8 | 5.5 | 6 | 7 |
| 0.0018 | 6 | 9 | 8 | 6 | 9 | 8 | 5.5 | 6 | 7 |
| 0.0022 | 6 | 9 | 10 | 6 | 7 | 7 | 6 | 6 | 7 |
| 0.0027 | 7 | 10 | 12 | 6 | 7 | 8 | 6 | 6 | 7 |
| 0.0033 | 7 | 10 | 14 | 6 | 7 | 9 | 6 | 7 | 8 |
| 0.0039 | 8 | 12 | 14 | 6 | 7 | 9 | 6 | 8 | 8 |
| 0.0047 | 8 | 12 | 14 | 6 | 8 | 10 | 6 | 8 | 8 |
| 0.0056 | 9 | 14 | 16 | 6 | 9 | 10 | 6 | 8 | 9 |
| 0.0068 | 9 | 14 | 16 | 7 | 9 | 12 | 6 | 8 | 10 |
| 0.0082 | 11 | 16 | 18 | 7 | 10 | 12 | 6 | 9 | 10 |
| 0.01 | 12 | 16 | 18 | 7 | 10 | 12 | 6 | 9 | 10 |
| 0.022 | - | - | - | 10 | 16 | 18 | 8.5 | 14 | 16 |
| 0.033 | - | - | - | 8 | 18 | 22 | 7 | 16 | 18 |
| 0.047 | - | - | - | - | 21 | - | 7 | 16 | 21 |
| 0.1 | - | - | - | 8/9 | - | - | 8/9 | - | - |

*.022 μF AND ABOVE NOT AVAILABLE IN Y5F, PLEASE USE Y5P.
NIC RESERVES THE RIGHT TO REQUEST MINIMUM QUANTITIES ON CERTAIN VALUES.

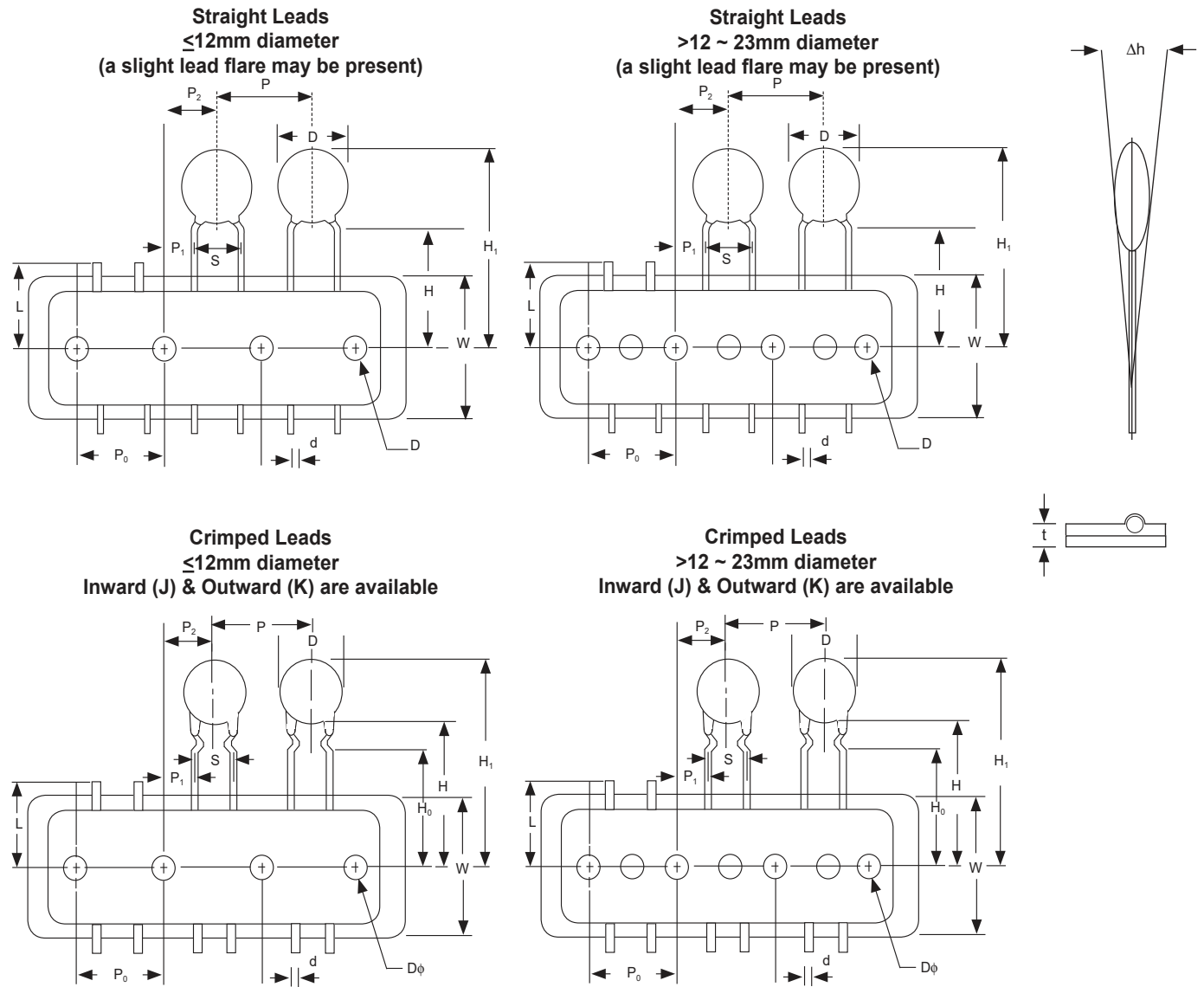


(BULK AND TAPED STYLES)



(BULK ONLY)

DIMENSIONS (mm)

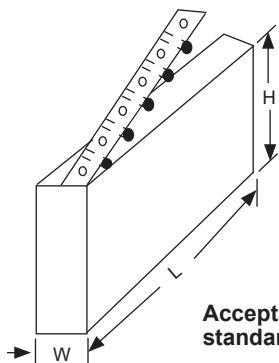


| Symbol | D max. | d | P | P ₀ | P ₁ | P ₂ | S | H | H ₀ | H ₁ | Dφ | W | L | t | Δh |
|-----------|----------|----------------|------|----------------|----------------|----------------|--------------|--------------|---|-----------------|------|------|-----------|------|------|
| Value | ≤ 12 | 0.6 | 12.7 | 12.7 | 5.1 | 6.35 | 2.5 | 20.0 | Applies to Parts with Crimped Leads 16.0 | 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 | 9.5 | | | | | | | | |
| Tolerance | ≤ 12 | +0.06 -0.05 | ±1.0 | ±0.2 | ±0.7 | ±1.0 | +0.8 -0.2 | +1.5 -1.0 | ±0.5 | --- | ±0.2 | ±0.5 | --- | ±0.3 | ±2.0 |
| | >12 ~ 23 | | | | ±1.5 | ±1.3 | | | | | | | | | |

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



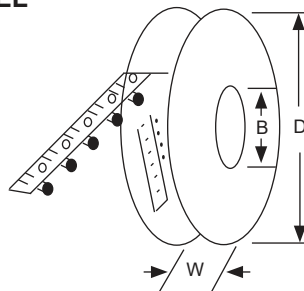
AMMO PACK



$H \leq 372$ (14.64")
 $L \leq 377$ (14.84")
 $W \leq 55$ (2.16")

Acceptable to standard radial type cartridge.

REEL



$D \leq 354$ (13.93")
 $B \geq 21$ (.83") but
 ≤ 30 (1.18")
 $W \leq 55$ (2.16")

Acceptable to standard radial type cartridge with a few extra accessories.

PART NUMBER SUFFIX FOR OPTIONAL TAPE & REEL OR TAPE & BOX PACKAGING

Tape & Reel Straight Lead Options

TRF = Tape & Reel with 5mm lead-space
 TR.100LSF = Tape & Reel with 2.0mm lead-space
 TR.250LSF = Tape & Reel with 6.35mm lead-space
 TR.300LSF = Tape & Reel with 7.5mm lead-space
 TR.375LSF = Tape & Reel with 9.5mm lead-space

Tape & Reel Crimped Lead Options (J = Inward Crimp, K = Outward Crimp)

JTRF or KTRF = Tape & Reel with 5mm lead-space
 JTR.250LSF or KTR.250LSF = Tape & Reel with 6.35mm lead-space
 JTR.300LSF or KTR.300LSF = Tape & Reel with 7.5mm lead-space
 JTR.375LSF or KTR.375LSF = Tape & Reel with 9.5mm lead-space

Tape & Box Straight Lead Options

TBF = Tape & Reel with 5mm lead-space
 TB.100LSF = Tape & Reel with 2.0mm lead-space
 TB.250LSF = Tape & Reel with 6.35mm lead-space
 TB.300LSF = Tape & Reel with 7.5mm lead-space
 TB.375LSF = Tape & Reel with 9.5mm lead-space

Tape & Box Crimped Lead Options (J = Inward Crimp, K = Outward Crimp)

JTBF or KTBF = Tape & Reel with 5mm lead-space
 JTB.250LSF or KTB.250LSF = Tape & Reel with 6.35mm lead-space
 JTB.300LSF or KTB.300LSF = Tape & Reel with 7.5mm lead-space
 JTB.375LSF or KTB.375LSF = Tape & Reel with 9.5mm lead-space

Notes:

1. The above lead-space options may not be available in all part diameters. Contact NIC for details.
2. Inward "J style" and outward "K style" may not be available in all part diameters and voltages. Contact NIC for details.