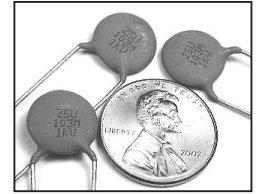


### GENERAL PURPOSE, HI-K (DIELECTRIC CONSTANT Class II/III) TYPE

#### FEATURES

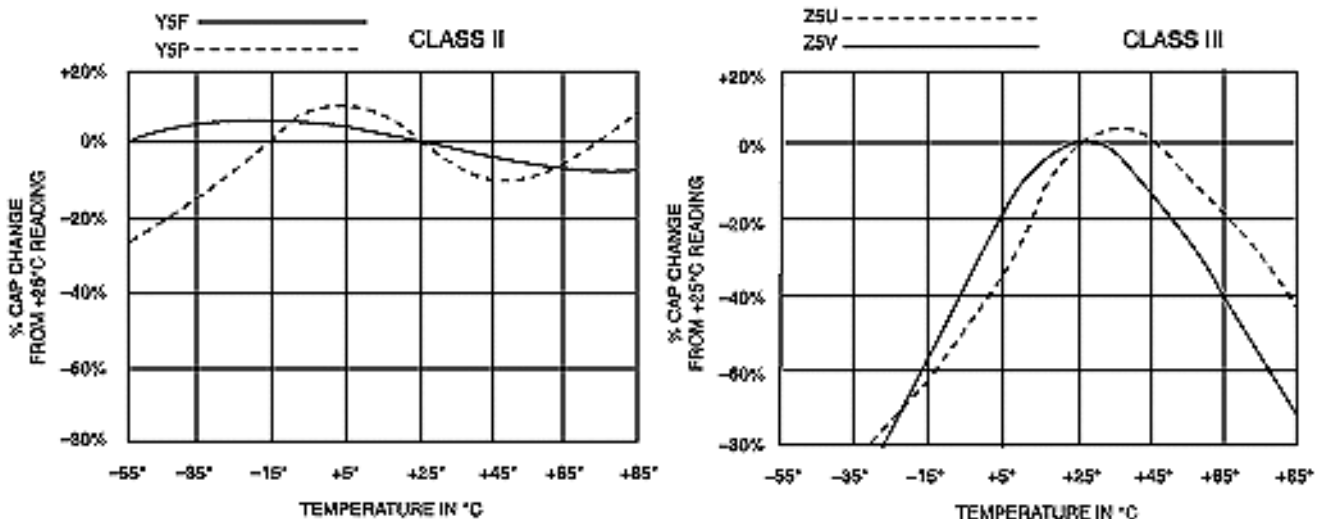
- WIDE SELECTION OF TEMPERATURE CHARACTERISTICS
  - HIGH INSULATION RESISTANCE
  - EXCELLENT HIGH FREQUENCY CHARACTERISTICS
  - ECONOMICALLY PRICED
  - AVAILABLE WITH FORMED LEADS AND ON TAPE FOR AUTOMATIC INSERTION
- \*See Part Number System for Details



#### SPECIFICATIONS

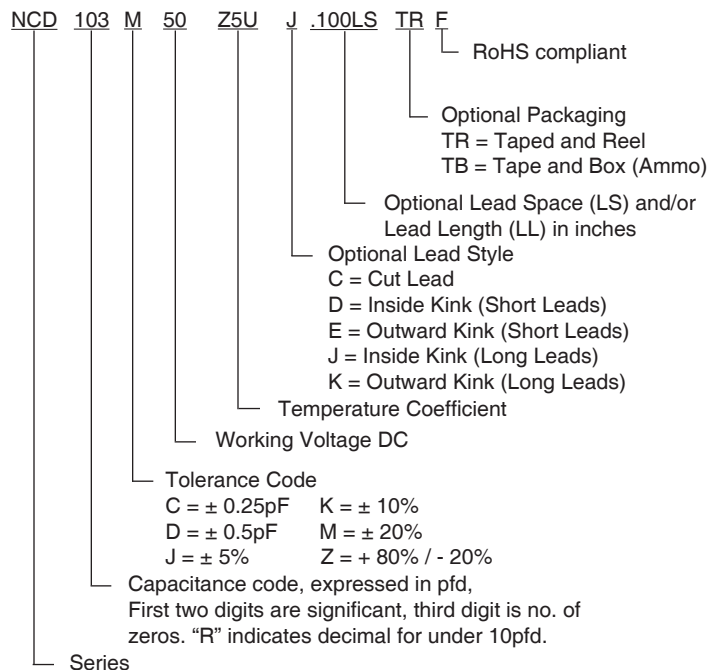
Temperature Characteristics		Y5F	Y5P	Z5U	Z5V
Operating Temperature Range		-30°C ~ +85°C	-30°C ~ +85°C	+10°C ~ +85°C	+10°C ~ +85°C
Capacitance Range		100pF ~ 0.0039μF	100pF ~ 0.01μF	0.001μF ~ 0.1μF	0.001μF ~ 0.1μF
Standard Tolerance		±10% (K)	±10% (K)	±20% (M)	+80%/-20% (Z)
Capacitance Change Over Temperature 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

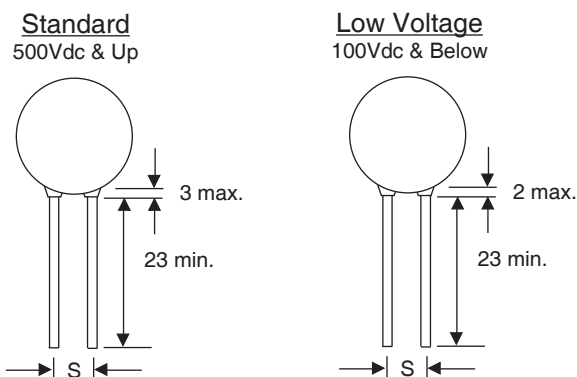
NCD Series Class II/III



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)
$\geq 12$	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

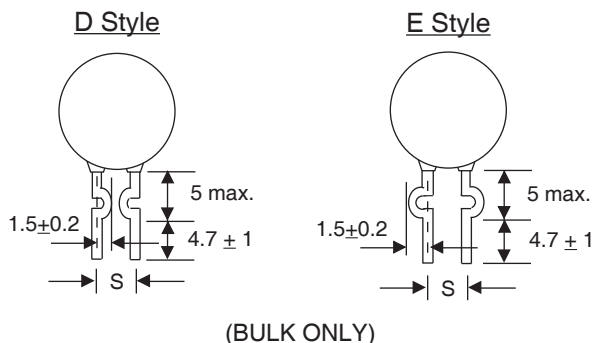
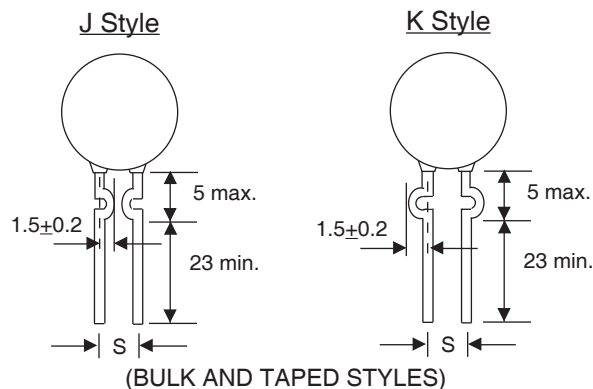
**BODY THICKNESS**  
2 ~ 4MM DEPENDENT ON CV



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

Cap. (pF/ $\mu\text{F}$ )	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 $\mu\text{F}$	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	-	-

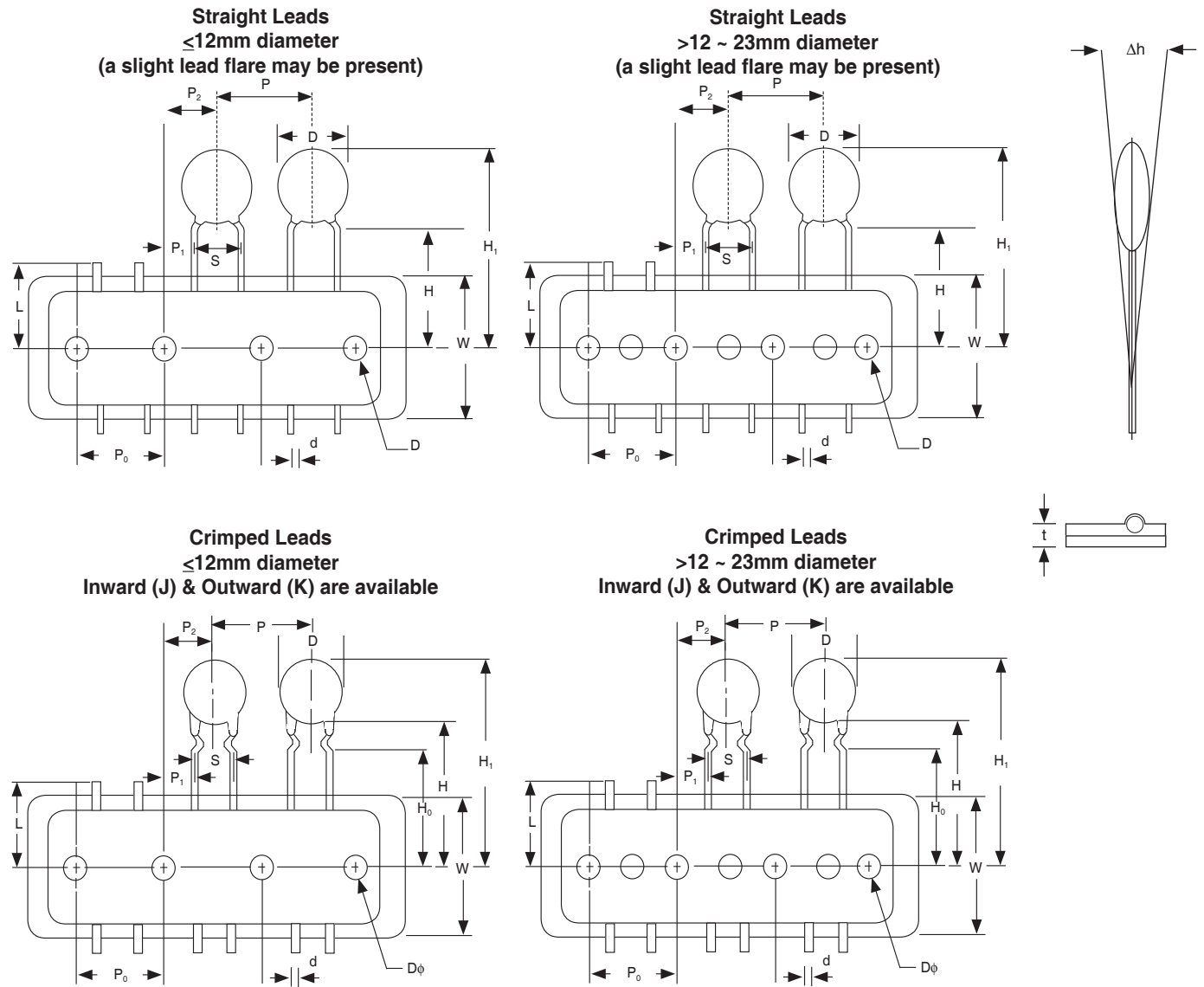
\* 0.022 $\mu\text{F}$  AND ABOVE NOT AVAILABLE IN Y5F, PLEASE USE Y5P.  
NIC RESERVES THE RIGHT TO REQUEST MINIMUM QUANTITIES ON CERTAIN VALUES.



(BULK ONLY)



## DIMENSIONS (mm)

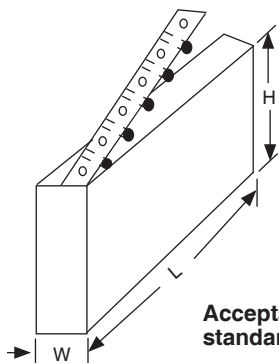


Symbol	D max.	d	P	P <sub>0</sub>	P <sub>1</sub>	P <sub>2</sub>	S	H	H <sub>0</sub>	H <sub>1</sub>	Dφ	W	L	t	Δh
Value	$\leq 12$	0.6	12.7	12.7	5.1	6.35	2.5	20.0	Applies to Parts with Crimped Leads	32.25 max.	4.0	18.0	11.0 max.	0.6	0.0
					3.85		5.0								
					3.18		6.35								
	$>12 \sim 23$	0.6 or 0.8*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

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



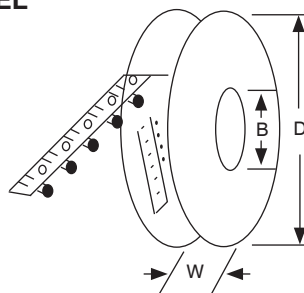
## AMMO PACK



$H \leq 372$  (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  
 $\leq 30$  (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  
 JTBR.250LSF or KTBR.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.