

### SEMICONDUCTOR TYPE

#### FEATURES

- STABLE TEMPERATURE CHARACTERISTICS
- HIGH VOLUMETRIC EFFICIENCY
- ECONOMICALLY PRICED
- AVAILABLE WITH FORMED LEADS AND ON TAPE FOR AUTOMATIC INSERTION

**RoHS Compliant**

Includes all homogeneous materials

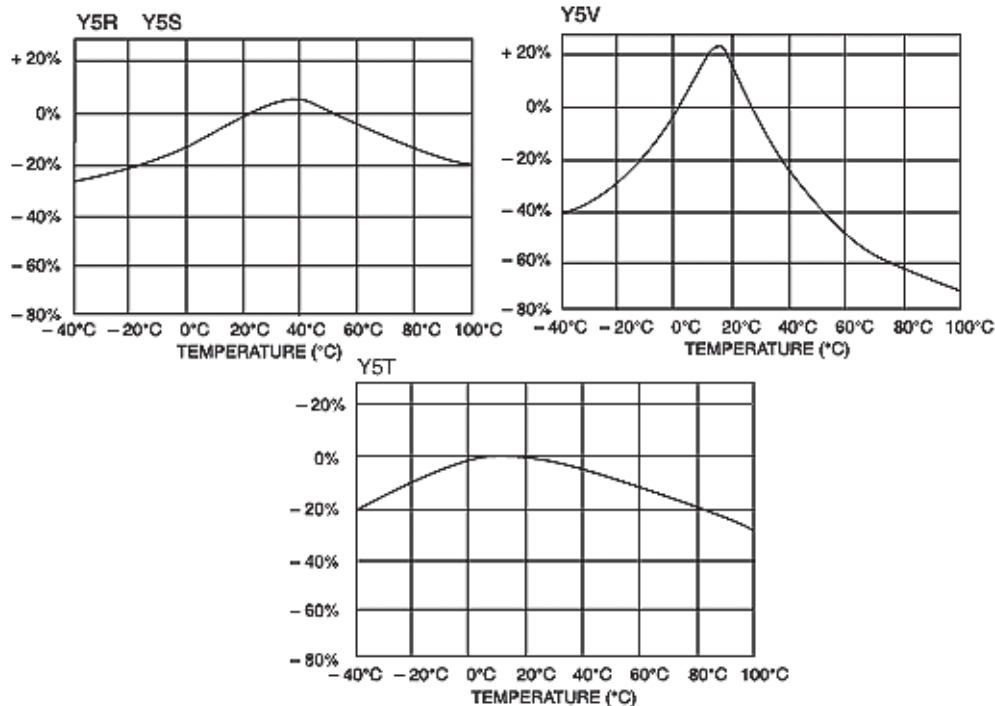
\*See Part Number System for Details



#### SPECIFICATIONS

Temperature Characteristics	Y5R	Y5S	Y5T	Y5V
Operating Temperature Range	-30°C ~ +85°C			
Standard Tolerance	±20% (M)			
Capacitance Change Over Temperature Range	±20%	±22%	-33% ~ +22	-82% ~ +20%
Dissipation Factor	Maximum 8%			
Insulation Resistance	12Vdc = 0.004Megohms		16Vdc = 1Megohm	
Working Voltage Range	12Vdc ~ 50Vdc			
Dielectric Withstanding Voltage (Test Voltage)	1.25 Times Rated Voltage For Not Less Than 1 Second, 50mA Maximum			
Test Conditions	1KHz, 0.5V ± 0.1Vrms, +25°C			

#### PERCENT OF CAPACITANCE CHANGE



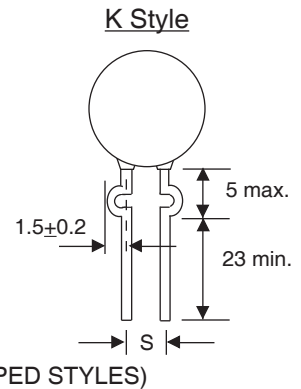
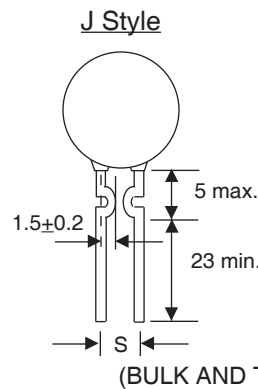
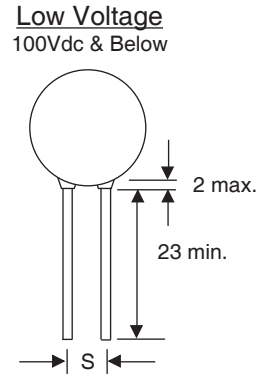
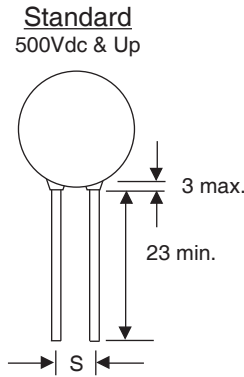
# Ceramic Disc Capacitors

## NCD Series Class III

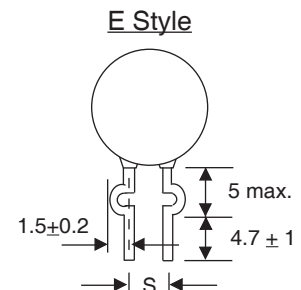
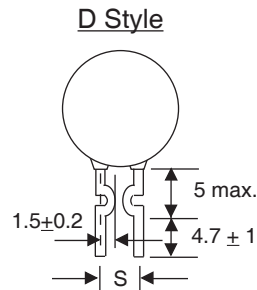
Body Diameter	Lead Spacing (mm) - S			
	Standard Bulk	Standard T&R	Optional Bulk mm (inches)	Optional T&R mm (inches)
5 ~ 11	6.35 ± 0.8	5.0 ± 0.8	5.0 ± 0.8 (0.200LS)	2.5 ± 0.8 (0.100LS)
≥12	6.35 ± 0.8	5.0 ± 0.8	7.5 ± 0.8 (0.295LS)	7.5 ± 0.8 (0.295LS)
			10.0 ± 0.8 (0.395LS)	10.0 ± 0.8 (0.395LS)

**LEAD DIAMETER**  
0.6MM IS STANDARD

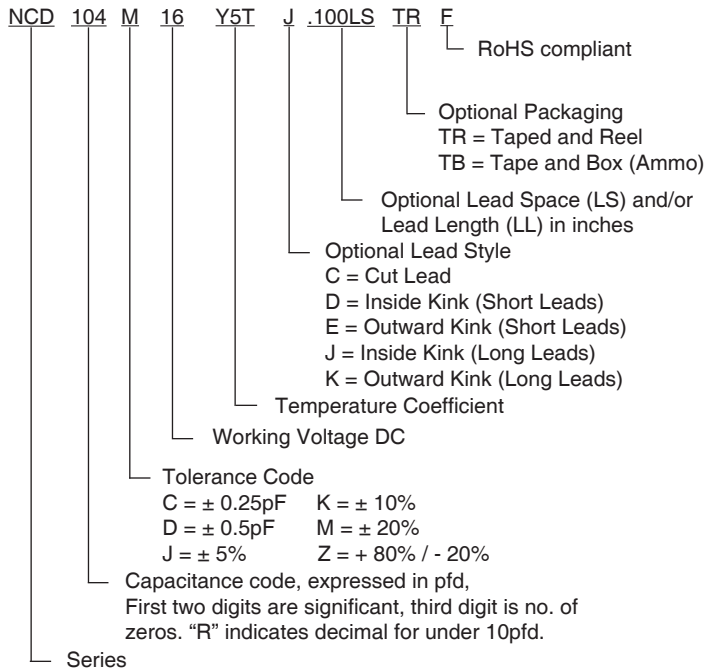
**BODY THICKNESS**  
2 ~ 4MM DEPENDENT ON CV



(BULK AND TAPED STYLES)



(BULK ONLY)



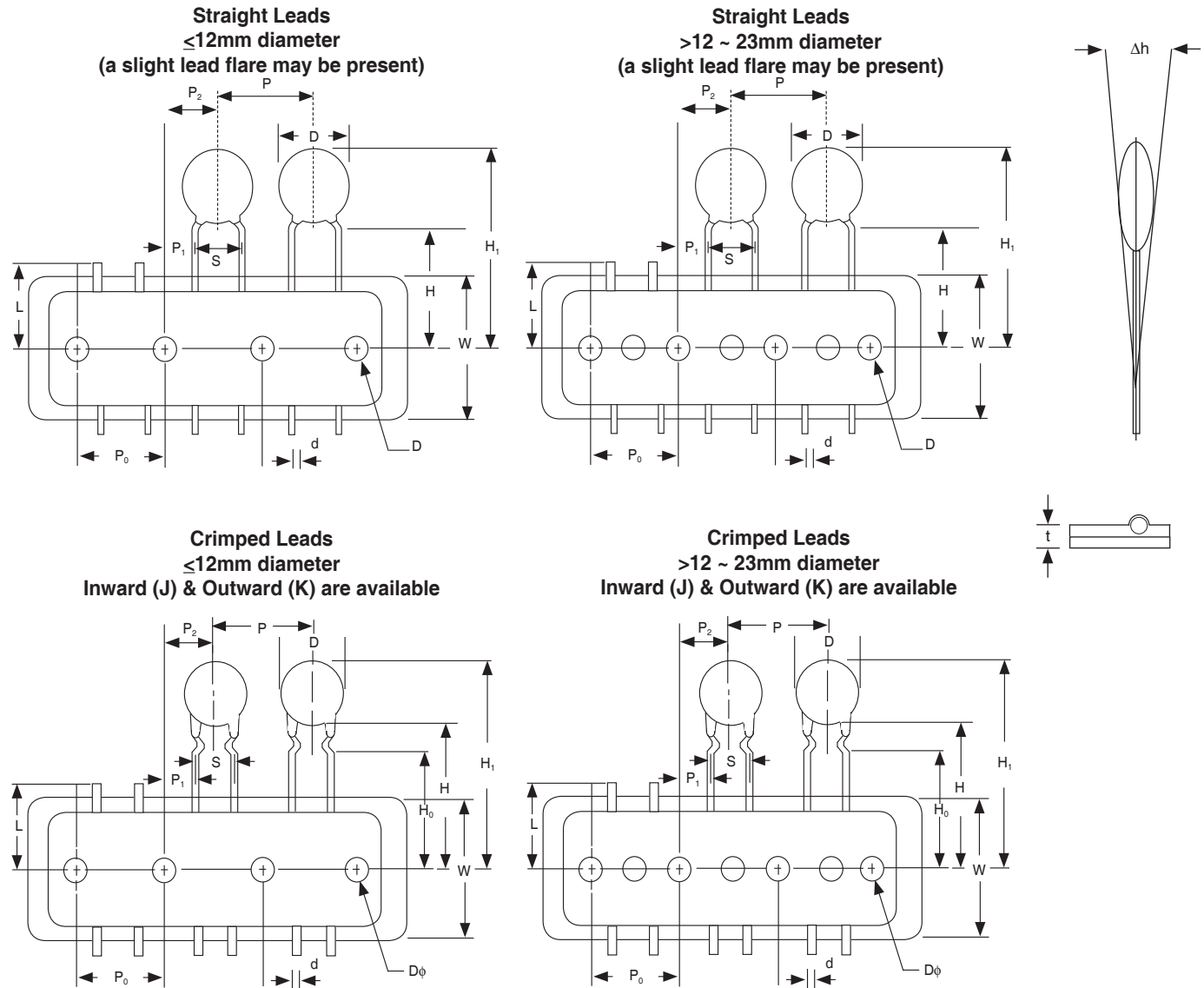
### STANDARD PRODUCTS AND MAXIMUM DIAMETER (mm) BY T.C. AND VOLTAGE

Cap. (µF)	Y5R/Y5S				Y5T				Y5V			
	Working Voltage (Vdc)											
	12	16	25	50	12	16	25	50	12	16	25	50
0.01	6	6	6	6	6	6	6	6	5	5	5	5
0.022	7	7	7	7	7	7	7	8	6	6	6	6
0.033	7	7	7	7	7	7	7	9	6	6	6	7
0.047	9	9	9	9	7	7	7	9	6	6	6	7
0.068	10	10	10	10	8	8	8	12	7	7	7	7
0.1	10	10	10	12	10	10	10	12	7	7	7	8
0.22	-	-	-	-	-	-	-	-	10	10	10	-

NIC RESERVES THE RIGHT TO REQUEST MINIMUM QUANTITIES ON CERTAIN VALUES



## DIMENSIONS (mm)

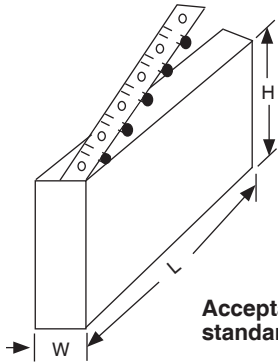


Symbol	D max.	d	P	P <sub>0</sub>	P <sub>1</sub>	P <sub>2</sub>	S	H	H <sub>0</sub>	H <sub>1</sub>	D $\phi$	W	L	t	$\Delta h$
Value	$\leq 12$	0.6 or 0.8*	12.7	12.7	5.1	6.35	2.5	20.0	Applies to Parts with Crimped Leads 16.0	32.25 max.	4.0	18.0	11.0 max.	0.6	0.0
					3.85		5.0			H max. + D max.					
	3.18				6.35	---									
	8.95				12.7		7.5								
$> 12 \sim 23$															
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	$\pm 0.5$	---	$\pm 0.2$	$\pm 0.5$	---	$\pm 0.3$	$\pm 2.0$
	$> 12 \sim 23$				$\pm 1.5$		$\pm 1.3$								

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



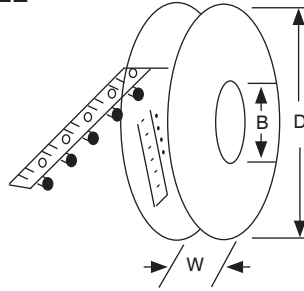
## AMMO PACK



$H \leq 372$  (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  
 $\leq 30$  (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  
 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.