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

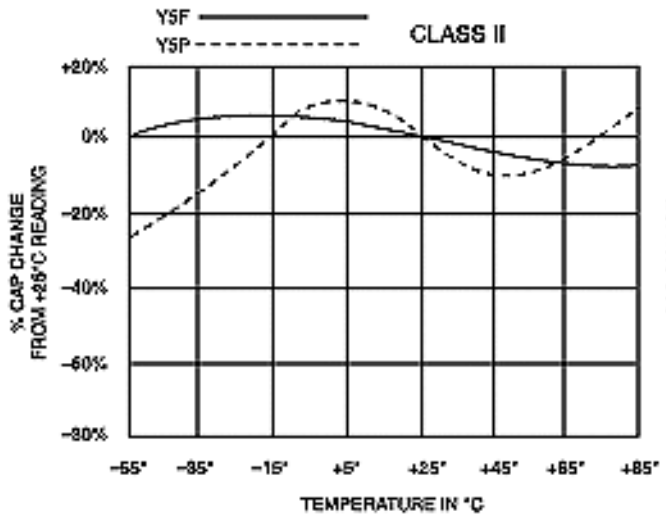
FEATURES

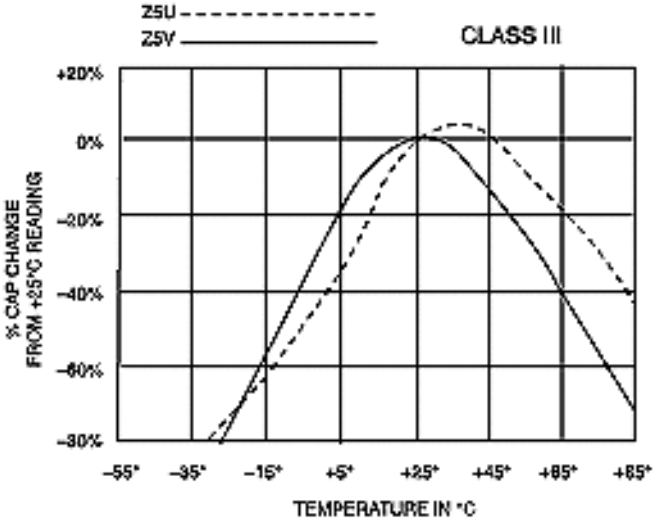
- WIDE SELECTION OF TEMPERATURE CHARACTERISTICS
- HIGH INSULATION RESISTANCE
- EXCELLENT HIGH FREQUENCY CHARACTERISTICS *See Part Number System for Details
- ECONOMICALLY PRICED
- AVAILABLE WITH FORMED LEADS AND ON TAPE FOR AUTOMATIC INSERTION

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 ~ 0.01µF	100pF ~ 0.022µF	0.001µF ~ 0.01µF	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 ±02Vrms		1KHz, 0.5V ± 0.1Vrms	

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





NCD 103 M 50 Z5U J .1LS TR F

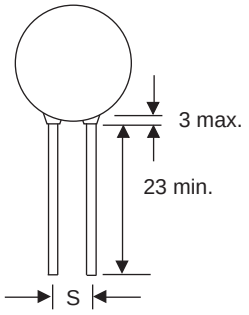
- F — RoHS compliant
- TR — Optional Packaging: TR = Taped and Reel; TB = Tape and Box (Ammo)
- .1LS — Optional Lead Space (LS) and/or Lead Length (LL) in inches
- J — Optional Lead Style: C = Cut Lead; D = Inside Kink (Short Leads); E = Outward Kink (Short Leads); J = Inside Kink (Long Leads); K = Outward Kink (Long Leads)
- Z5U — Temperature Coefficient
- 50 — Working Voltage DC
- M — Tolerance Code: C = ± 0.25pF; D = ± 0.5pF; J = ± 5%; K = ± 10%; M = ± 20%; Z = + 80% / - 20%
- 103 — Capacitance code, expressed in pfd, First two digits are significant, third digit is no. of zeros. "R" indicates decimal for under 10pfd.
- NCD — Series

Lead Spacing (mm) - S				
Body Diameter	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 (0.2LS)	2.5 ± 0.8 (0.1LS)
≥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)

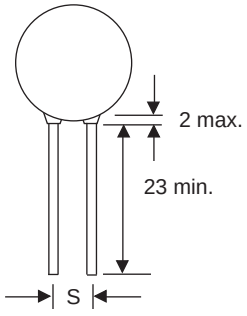
LEAD DIAMETER
0.6MM IS STANDARD

BODY THICKNESS
2 ~ 4MM DEPENDENT ON CV

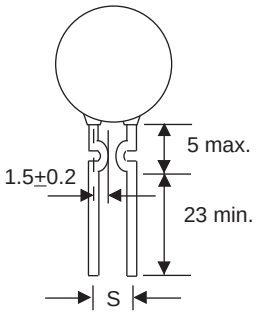
Standard
500Vdc & Up



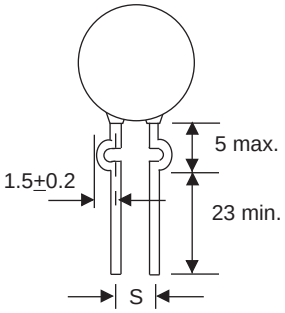
Low Voltage
100Vdc & Below



J Style

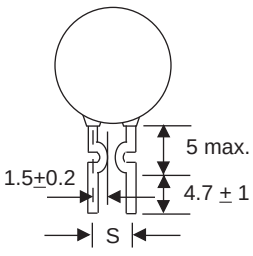


K Style

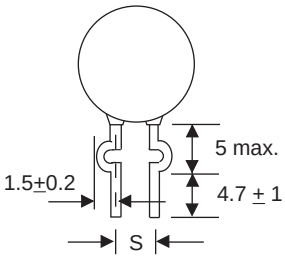


(BULK AND TAPED STYLES)

D Style



E Style



(BULK ONLY)

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

Cap. (pF/μF)	Y5F/Y5P*			Z5U			Z5V		
	Working Voltage (Vdc)								
	50 100	500	1K	50 100	500	1K	50 100	500	1K
100~470pF	6	6	6	-	-	-	-	-	-
560	6	6	6	-	-	-	-	-	-
680	6	6	7	-	-	-	-	-	-
750	6	6	7	-	-	-	-	-	-
820	6	6	7	-	-	-	-	-	-
0.001μF	6	7	7	6	6	6	-	6	6
0.0015	6	8	8	6	6	7	-	6	6
0.0022	6	9	10	6	7	7	6	6	6
0.0027	7	10	12	6	7	8	6	6	7
0.0033	7	10	14	6	7	9	6	7	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	10	16	18	7	10	12	6	9	10
0.01	12	16	20	7	10	12	6	9	10
0.015	14	21	-	9	14	16	7	10	12
0.022	-	-	-	10	16	18	8	14	16
0.033	-	-	-	8	18	22	7	16	18
0.047	-	-	-	8	21	24	7	16	21
0.068	-	-	-	8/9	24	-	8	16	-
0.1	-	-	-	8/9	26	-	8/9	17	-

***.0047μF AND ABOVE NOT AVAILABLE IN Y5F, PLEASE USE Y5P.**
NIC RESERVES THE RIGHT TO REQUEST MINIMUM QUANTITIES ON CERTAIN VALUES.