



Class II Ceramic Disc Capacitors (RoHS Compliant) CDR Series

FEATURES

- Large capacitance in small sizes
- Non linear temperature coefficient of capacitance.



CHARACTERISTICS

Item	Characteristics
Operating Temperature Range	-25°C ~ +85°C
Capacitance Tolerance (min.)	Within the tolerance at 1MHz, 1~3Vrms, 25°C
Working Voltage (WVDC)	50WV, 100WV, or 500WV
Insulation Resistance	10,000MΩ min. or 200MΩμF, whichever is less
Test Voltage	2.5 x WVDC
Life Test	At 2 x WVDC @85°C for 1000 hours @ 85°C, capacitors shall meet the following: the capacitance change for Y5P will be ±10%; Z5U will be ±20%; Z5V will be ±30%; the dissipation factor for Y5P and Z5U will be ≤50x10 ⁻³ ; Z5V will be ≤75x10 ⁻³ .
Humidity Test	At exposure in the ambient temperature of 40°C, and at 95% RH for 500 hours: the capacitance change for Y5P will be ±10%; Z5U will be ±20%; Z5V will be ±30%; the dissipation factor for Y5P and Z5U will be ≤50x10 ⁻³ ; Z5V will be ≤75x10 ⁻³ .

PART NUMBERING SYSTEM

1	4	0	5	0	P	2	-	1	0	1	K	-	R	C
Series			Voltage Actual Value		Temp. Coeff.	Lead Space		1st digit	2nd digit	# o's	Tolerance		Suffix (RoHSCompliant)	
								Capacitance (pF)						

Temp. Coeff.	Code
Y5P	P
Z5U	Z
Z5V	Q

Lead Space	Code
2.5mm	2
5.0mm	5
9.5mm	9

Tolerance	Code
±0.25pF	C
±5%	J
±10%	K

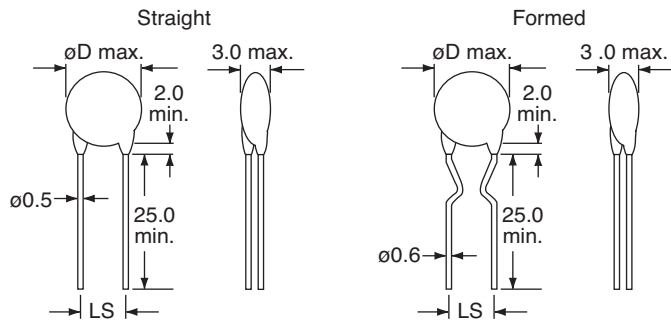
Tolerance	Code
±20%	M
±0.5pF	D
+80/-20%	Z

TEMPERATURE COEFFICIENT CHARACTERISTICS

Temperature Coefficient	Y5P	Z5U	Z5V
Operating Temp. Range	-25°C ~ +85°C	+10°C ~ +85°C	+10°C ~ +85°C
Capacitance Change	±10%	+20%, -55%	+30%, -80%

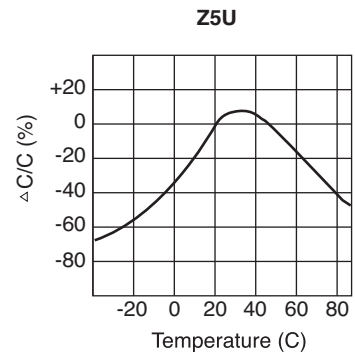
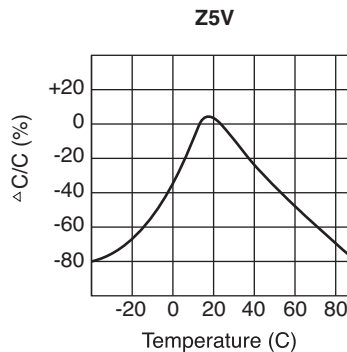
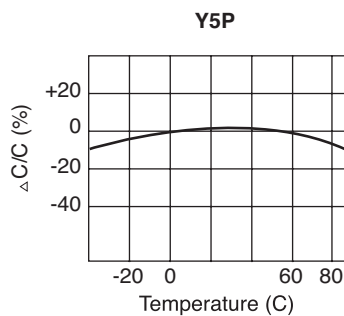
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■ DIMENSIONS (mm), CAPACITANCE RANGES (pF)



Dimensions		Working Voltage (WV); Temperature Coefficient; Capacitance Range (pF)				
		50 and 100			500	
ϕD (mm)	LS (mm)	Y5P	Z5U	Z5V	Y5P	Z5U
5	2.5/5.0	200 ~ 2200	1000 ~ 5000	1000 ~ 10000	150 ~ 270	1000 ~ 2200
6	2.5/5.0	2700 ~ 3000	6800 ~ 8200	- - -	390 ~ 1200	3700 ~ 3900
7.5	2.5/5.0	3300 ~ 3900	10000	20000 ~ 22000	1500 ~ 2000	- - -
8.5	2.5/5.0	4700 ~ 5600	- - -	- - -	2200 ~ 2700	4700 ~ 5000
9.5	5.0	6800 ~ 8200	- - -	- - -	3000 ~ 3300	6800 ~ 8200
10.5	5.0	10000	20000 ~ 22000	- - -	3900	10000
15	9.5	- - -	- - -	33000 ~ 100,000	- - -	22000

■ TYPICAL TEMPERATURE CHARACTERISTICS



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