

# CERAMIC DISC CAPACITOR

## CLASS I TEMPERATURE COMPENSATION



### FEATURES

- Linear temperature coefficient of capacitance.
- High stability of capacitance.
- Low loss at wide range of frequency.

## SPECIFICATIONS

OPERATING TEMPERATURE RANGE	-25 °C TO +85°C
RATED WORKING VOLTAGE	DC 50V, 500V
TEST VOLTAGE	3 times of the rated voltage
CAPACITANCE	Within the tolerance at 1 MHz, 0.12 Vrms. 26
Q FACTOR	At 1 MHz, 1 0.2 Vrms. 26 C ≥ 30pF Q ≥ 1,000 C < 30pF Q ≥ 400+20°C (C: Rated capacitance)
INSULATION RESISTANCE	10,000 M Ωmin.

Rated Volt. (VDC)	Temp. Char.	Capacitance		Dimensions (mm)		
		Range (pF)	Tolerance	D max	T max	F
50	NPO 0 60 PPM/°C	0.5 ~ 47	0.25pF & 0.5pF (Under 10pF)	5.5	3.5	5.0
		50 ~ 75		6.5		
		82 ~ 100		7.5		
		120 ~ 150	5% & 10% (Over 10pF)	8.5		
		180 ~ 270		10.5		
		300 ~ 390		12.5		
50	SL +350 ~ -1000PPM/°C	10 ~ 120	10%	5.5	3.5	5.0
		150 ~ 240		6.5		
		270 ~ 330		7.5		
		360 ~ 470		8.5		
		500 ~ 820		10.5		

## CLASS II HIGH DIELECTRIC CONSTANT

### FEATURES

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

## SPECIFICATIONS

RATED WORKING VOLTAGE	DC 50V, 500V
TEST VOLTAGE	2.5 times of the rated voltage
CAPACITANCE	Within the tolerance at 1 MHz, 0.12 Vrms. 26
DISSIPATION FACTOR (tan δ)	Y5P, Z5U : tan δ ≤ 2.5% Z5V tanδ ≤ 5%
INSULATION RESISTANCE	10,000M Ω or 200MΩ μF, whichever is the smaller

Rated Volt. (VDC)	Temp. Char.	Capacitance		Dimensions (mm)		
		Range (pF)	Tolerance	D max	T max	F
50	Y5P & Y5U 10%	100 ~ 2000	10% & 20%	5.5	3.5	5.0
		2200 . 2700		6.5		
		3000 . 3300		7.5		
		3900 . 4700		8.5		
		5600 . 6800 10000		10.5		
50	E +22 ~ -56% (Z5V)	2200 . 3300 4700 . 5000	20% & +80-20%	5.5	3.5	5.0
		5600 . 6800 8200		6.5		
		10000		7.5		
		12000 . 15000		8.5		
		18000 . 20000 22000		10.5		
50	F +22 ~ -82% (Y5V)	4700 . 5000	+80-20%	5.5	3.5	5.0
		10000 . 15000		6.5		
		18000 . 20000		7.5		
		22000 . 30000		8.5		
		33000 . 40000		10.5		