

## Ceramic Disc Capacitor Class 1 Temperature Compensation

### Features

- Linear Temperature coefficient of capacitance
- High Stability of capacitance
- Low loss at wide range of frequency



勝特力材料 886-3-5753170  
 勝特力电子(上海) 86-21-54151736  
 勝特力电子(深圳) 86-755-83298787  
[Http://www.100y.com.tw](http://www.100y.com.tw)

Specification	
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 1MHz, 1±0.2 Vrms, 25°C
Q Factor	At 1Mhz: 1±0.2 Vrms, 25°C C > 30pF ..... Q > 1,000 C < 30pF ..... Q ≥ 400+20°C (C: Rated capacitance)
Insulation Resistance	10,000M ohm min.

Rated Volt. (VDC)	Temp. Char.	Capacitance		Dimensions (mm)		
		Range (pF)	Tolerance	D max	T max	F
50	CH 0±60 PPM/°C (NPO)	0.5 ~ 47	±0.5pF (under 10 pF)	5.5	3.5	5.0
		50 ~ 75		6.5		
		82 ~ 100	7.5			
		120 ~ 150	±5% & ±10% (Over 10 pF)	8.5		
		180 ~ 270		10.5		
300 ~ 390	12.5	5.0, 10.0				
50	SL +350 ~ - 1000PPM/° C	10 ~ 120	±5% & ±10%	5.5	3.5	5.0
		150 ~ 240		6.5		
		270 ~ 330		7.5		
		360 ~ 470		8.5		
	500 ~ 820	10.5				

## Class 2 High Dielectric Constant

### Features

- Large capacitance in small size
- Non liner temperature coefficient of capacitance

Specification	
Rated Working Voltage	DC 50V, 500V

Test Voltage	2.5 times of the rated voltage
Capacitance	Within the tolerance at 1MHz, $1 \pm 0.2$ Vrms, 25°C
Dissipation Factor	Y5P, Z5U : $\tan \delta < 2.5\%$ Z5V : $\tan \delta < 5\%$
Insulation Resistance	10,000M ohm or 200M ohm $\mu$ F, whichever is the smaller

Rated Volt. (VDC)	Temp. Char.	Capacitance		Dimensions (mm)		
		Range (pF)	Tolerance	D max	T max	F
50	B $\pm 10\%$ (Y5P)	100 ~ 2000	$\pm 10\%$ & $\pm 20\%$	5.5	3.5	5.0
		2000 . 2700		6.5		
		3000 . 3300		7.5		
		3900 . 4700		8.5		
		5600 . 6800		10.5		
		10000				
		2200 . 3300		5.5		
		4700 . 5000				
		4600 . 6800		6.5		
		8200				
50	E $\pm 22 \sim 56\%$ (Z5U)	10000	$\pm 20$ & $+80-20\%$	7.5	3.5	5.0
		12000 . 15000		8.5		
		18000 . 20000		10.5		
		22000				
		4700 . 5000		5.5		
		10000 . 15000		6.5		
		18000 . 20000		7.5		
		20000 . 30000		8.5		
		33000 . 40000		10.5		
		50		F $\pm 22 \sim 82\%$ (Z5V)		
20000 . 30000	8.5					
33000 . 40000	10.5					

勝特力材料 886-3-5753170  
 勝特力电子(上海) 86-21-54151736  
 勝特力电子(深圳) 86-755-83298787  
[Http://www.100y.com.tw](http://www.100y.com.tw)

### Class 3 Semi Conductive Type

#### Features

- Linear Temperature coefficient of capacitance
- Stable capacitance change over the specified temperature
- Low loss at wide range of frequency
- Cost saving by replacing film capacitors.
- Ultra large capacitance in small size

Operating Temperature Range -10°C to +85°C  
 Rated Working Voltage DC 16V, 25V, 50V  
 Test Voltage 2 times of the rated voltage  
 Dissipation Factor At 1Mhz: 0.1 Vrms, 25°C  
 Factor (tan  $\xi$ )  
 FY 16V 7.5%max  
 FY. RY 25/50 5%max  
 Insulation Resistance (at 25°C)  
 16V, 100M ohm  $\mu$ F or M ohm  $\mu$ f  
 whichever is less  
 25V/50V, 1000M ohm  $\mu$ F or 20 M ohm  $\mu$ F  
 whichever is less

Rated Volt. (VDC)	Temp. Char.	Capacitance		Dimensions (mm)		
		Range (pF)	Tolerance	D max	T max	F
50		20000 ~ 100000		5.5		
		20000 ~ 220000		10.5		
25	FY +22 ~ 82% (Y5V)	22000	$\pm 20\%$ & +80-20%	5.5	3.5	5.0
		33000 ~ 100000		6.5		
		200000 ~ 220000		10.5		
		22000		5.5		
50		33000 ~ 47000		6.5		
		100000		5.5		
		6800 ~ 10000		5.5		
		15000 ~ 22000		6.5		
50		33000 ~ 47000		7.5		
		68000 ~ 100000		8.5		
		68000 ~ 10000		5.5		
		15000 ~ 22000		6.5		
50	RY $\pm 15\%$ (Y5R)	33000 ~ 47000	$\pm 10\%$ & $\pm 20\%$	8.5	3.5	5.0
		68000 ~ 100000		5.5		
		15000 ~ 22000		6.5		
		33000 ~ 47000		8.5		
50		68000		10.5		

勝特力材料 886-3-5753170  
 勝特力电子(上海) 86-21-54151736  
 勝特力电子(深圳) 86-755-83298787  
[Http://www.100y.com.tw](http://www.100y.com.tw)