

CERAMIC DISC CAPACITORS-(S.C.) CLASS 3 TYPE III

FEATURES

- Linear temperature characteristic of capacitance.
- Stable capacitance change over the specified temperature.
- Low loss at wide range of frequency.
- Ultra large capacitance in small size.

1. Class III—Type 'S'

2. Temperature coefficient (Ref. Fig 2)

Code	Temp. Range	Cap. Change	EIA Code
B	-25°C +85°C	±10%	Y5P
D		±15%	Y5R
E		+22% -33%	Y5T
		+22% -56%	Y5U
F		+30% -80%	Y5V

3. Rated Voltage (D.C.)

Code	Voltage
1C	16V
1E	25V
1H	50V

4. Rated capacitance.

Code	Cap. (PF)
103	10,000PF
223	22,000PF
473	47,000PF
104	100,000PF
224	220,000PF

5. Tolerance on rated capacitance.

Code	Tol.	16V—50V
K	±10%	B (Y5P)
M	±20%	D, E (Y5R, Y5T, Y5U)
Z	+80% -20%	F (Y5V)

6. Lead Shape. (Ref. Fig. 3.)

Code	Type	
K	Bulk	Short Kink
S		Short Straight
L		Long Straight
A	Tape/Reel	Long Straight
B	Tape/Box	Long Straight
C	Tape/Reel	Long Kink
D	Tape/Box	Long Kink

7. Lead Spacing. (F)

Code	Dimension (mm)		
	K	S	L
2	—	2.5 ± 0.8	2.5 ± 0.8
5	5.0 ± 0.8	5.0 ± 0.8	5.0 ± 0.8
6	—	6.3 ± 0.8	6.3 ± 0.8
7	—	7.5 ± 0.8	7.5 ± 0.8
0	10.0 ± 0.8	—	10.0 ± 0.8

8. Lead Length. (L)

Code	Dimension (mm)		
	K	S	L
3	3.5 ± 1.0	3.5 ± 1.0	3.5 ± 1.0
5	5.0 ± 0.8	5.0 ± 0.8	5.0 ± 0.8
6	6.3 ± 0.8	6.3 ± 0.8	6.3 ± 0.8
0	10.0 ± 0.8	10.0 ± 0.8	10.0 ± 0.8
1	—	—	25min

9. Lead Wire. (d)

Code	Dia (φ mm)	Rated Voltage (D.C.)
5	0.48 ± 0.05	16V~500V
6	0.50 ± 0.05	1KV
8	0.45~0.60	2KV
9	0.60 ± 0.05	3KV~above

10. Grade

Code	Temp. Range
Y	-25°C ~ +85°C

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Dimension & Capacitance Range

Dia. (D) max.	Dimension (mm)			Capacitance Range (PF)											
	Lead Spacing (F)			16V				25V				50V			
	K	S	L	B	D	E	F	B	D	E	D	B	D	E	F
5	5.0±0.8	2.5±0.8	2.5±0.8	—	333	473	103 ~ 104	103	103 ~ 223	—	103 ~ 104	103	103	—	103 ~ 223
6	5.0±0.8	5.0±0.8	5.0±0.8	—	473	—	104	—	333 ~ 473	473	104	—	223	473	333 ~ 473
7	5.0±0.8	5.0±0.8	5.0±0.8	—	—	104	—	223	—	104	—	—	—	—	104
8	5.0±0.8	5.0±0.8	5.0±0.8	—	104	—	—	333	—	—	—	223	333 ~ 473	104	—
10	5.0±0.8	5.0±0.8	5.0±0.8	—	—	224	224	473	104	—	224	333	—	—	—
11	5.0±0.8 to	to	to	—	—	—	—	—	—	—	—	—	104	—	—
12	6.3±0.8	6.3±0.8	6.3±0.8	—	—	—	—	104	—	—	—	473	—	—	—

SPECIFICATION & TEST

No.	Item	Performance	Test Method
1.	Visual & Mechanical	To meet the specification.	The product shall be inspected for visible evidence of defect.
2.	Marking	To be clear and legible.	Marking shall be tested with acetone
3.	Voltage Proof (Between terminal)	No failure	Capacitor shall withstand, for not greater than 5 second, a D.C. test voltage of 2.5 times rated voltage. Charging current shall be 10mA max.
4.	Insulation resistance	12V/16V – 100MΩ. 25V/50V – 1000MΩ	Shall be measured 1 minute after with 10 ± 1V
5.	Capacitance	To be within the specified tolerance	Test frequency: 1KHz ± 20% Test voltage shall not exceed 0.1 Vrms at 25 ± 2°C
6.	Dissipation Factor (Tan δ) (%)	Characteristic B, D, E: 5% max. F: 5% max.	Same condition as above (Item 5).

Part Code Designation

Example: $\frac{S}{(1)}$ $\frac{D}{(2)}$ $\frac{1C}{(3)}$ $\frac{104}{(4)}$ $\frac{K}{(5)}$ — $\frac{K}{(6)}$ $\frac{5}{(7)}$ $\frac{5}{(8)}$ $\frac{5}{(9)}$ $\frac{Y}{(10)}$