Lower Voltage Ceramic DC Disc Capacitors 1000 V_{DC} Temperature and Voltage Stabilized

RoHS COMPLIANT

FEATURES

- Low losses
- High stability
- High capacitance in small size
- Complete range of capacitance values
- Radial leads
- Ceramic singlelayer capacitor
- Material categorization: For definitions of compliance please see www.vishay.com/doc?99912

APPLICATIONS

- Bypassing
- Resonant circuit
- Coupling

QUICK REFERENCE DATA				
DESCRIPTION	VALUE			
Ceramic Class	1		2	
Ceramic Dielectric	C0G	U2J	X5F	X7R
Voltage (V_{DC})	1000			
Min. Capacitance (pF)	10	27	56	10 000
Max. Capacitance (pF)	10	39	4700	10 000
Mounting	Radial			

INSULATION RESISTANCE

Min. 1000 ΩF or 50 000 MΩ

TOLERANCE ON CAPACITANCE

± 10 %

DISSIPATION FACTOR

2.0 % max. at 1 kHz; 1 V

CATEGORY TEMPERATURE RANGE

(- 55 to + 125) °C C0G, U2J, X7R

(- 25 to + 85) °C X5F

CLIMATIC CATEGORY ACC. TO EN 60068-1

55/125/21 C0G, U2J, X7R

25/085/21 X5F

OPERATING TEMPERATURE RANGE

(- 55 to + 105) °C

DESIGN

The capacitors consist of a ceramic disc of which both sides are silver-plated. Connection leads are made of tinned copper or tinned copper clad steel having diameters of 0.020" (0.51 mm) or 0.025" (0.64 mm).

The capacitors may be supplied with radial kinked or straight leads having lead spacing of 0.250" (6.35 mm) or 0.375" (9.5 mm).

The standard tolerance is ± 10 %.

Coating is made of flame retardant epoxy resin in accordance with *"UL 94 V-0"*.

CAPACITANCE RANGE

10 pF to 10 nF

RATED VOLTAGE

1000 V_{DC}

DIELECTRIC STRENGTH BETWEEN LEADS

Component test:

2500 V_{DC}, 2 s

CERAMIC DIELECTRIC

C0G, U2J (Class 1)

X5F, X7R (Class 2)

DIMENSIONS in inches (millimeters)

Fig. 1

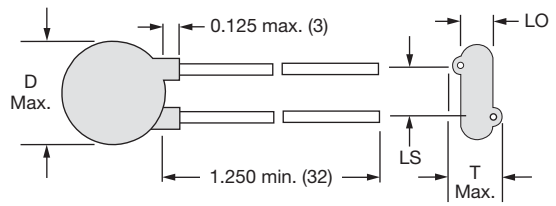
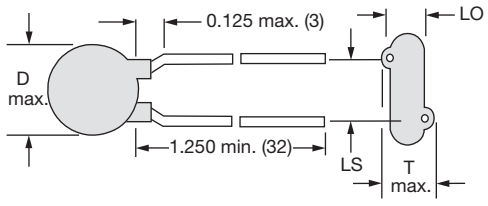


Fig. 2



LEAD OFFSET "LO" (nominal)	
1000 V_{DC}	0.050" (1.3 mm)

ORDERING INFORMATION, CERAMIC 1000 V_{DC} TEMPERATURE AND VOLTAGE STABILIZED

C (pF)	TOL. (%)	D DIAMETER INCH (mm)	T THICKNESS INCH (mm)	LS LEAD SPACE INCH (mm)	WIRE SIZE AWG	WIRE SIZE INCH (mm)	FIG.	ORDERING CODE
C0G (NP0)								
10	± 10	0.250 (6.4)	0.156 (4.0)	0.250 (6.4)	24	0.020 (0.51)	2	561R10TSQ10
U2J (N750)								
27	± 10	0.290 (7.4)	0.156 (4.0)	0.250 (6.4)	24	0.020 (0.51)	2	561R10TSQ27
30								561R10TSQ30
33			0.156 (4.0)	0.250 (6.4)				561R10TSQ33
39								561R10TSQ39
X5F								
56	± 10	0.250 (6.4)	0.156 (4.0)	0.250 (6.4)	24	0.020 (0.51)	2	562R10TSQ56
68								562R10TSQ68
75								562R10TSQ75
82								562R10TSQ82
100								562R10TST10
120								562R10TST12
150								562R10TST15
180								562R10TST18
200								562R10TST20
220								562R10TST22
250								562R10TST25
270								562R10TST27
300								562R10TST30
330								562R10TST33
390								562R10TST39
470								562R10TST47
500								562R10TST50
560		0.290 (7.4)	0.156 (4.0)	0.250 (6.4)				562R10TST56
680								562R10TST68
750								562R10TST75
820								562R10TST82
1000								562R10TSD10
1500		0.440 (11.2)	0.156 (4.0)	0.250 (6.4)	22	0.025 (0.64)	1	562R10TSD15
2000		0.490 (12.4)	0.156 (4.0)	0.375 (9.5)				562R10TSD20
2200		0.490 (12.4)	0.156 (4.0)	0.375 (9.5)				562R10TSD22
2700		0.560 (14.2)	0.156 (4.0)	0.375 (9.5)				562R10TSD27
3300		0.560 (14.2)	0.156 (4.0)	0.375 (9.5)				562R10TSD33
4700		0.680 (17.3)	0.156 (4.0)	0.375 (9.5)				562R10TSD47
X7R								
0.010 µF	± 10	0.680 (17.3)	0.156 (4.0)	0.375 (9.5)	22	0.025 (0.64)	1	562R10TSS10

TAPE AND REEL OPTIONS

- Tape and reel available on diameter sizes 0.250" to 0.680"
- Part number codes and specifications for tape and reel packaging are found in the general information document - find web-link below

RELATED DOCUMENTS

General Information	www.vishay.com/doc?23140

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