

Lower Voltage Ceramic DC Disc Capacitors 1000 V_{DC} Precision Capacitors



FEATURES

- Ultra stable over temperature and voltage
- Used when the ultimate in stability is required
- Radial leads
- Ceramic singlelayer capacitor
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912


RoHS
COMPLIANT

APPLICATIONS

- Temperature compensating
- Resonant circuit

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).

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

QUICK REFERENCE DATA					
DESCRIPTION	VALUE				
Ceramic Class	1				
Ceramic Dielectric	C0K	C0G	U2J	M3K	S3N
Voltage (V _{DC})	1000				
Min. Capacitance (pF)	1.0	3.0	33	560	680
Max. Capacitance (pF)	2.7	270	68	560	680
Mounting	Radial				

INSULATION RESISTANCE

Min. 1000 ΩF or 50 000 MΩ

TOLERANCE ON CAPACITANCE

± 5 %

DISSIPATION FACTOR

0.1 % max. at 1 MHz; 1 V

CATEGORY TEMPERATURE RANGE

(-55 to +125) °C

CLIMATIC CATEGORY ACC. TO EN 60068-1

55/125/21

OPERATING TEMPERATURE RANGE

(-55 to +105) °C

CAPACITANCE RANGE

1.0 pF to 680 pF

RATED VOLTAGE

1000 V_{DC}

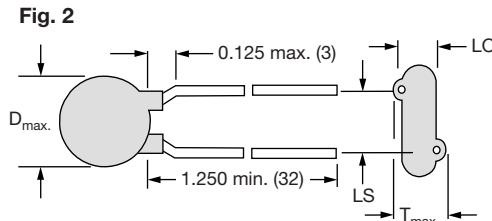
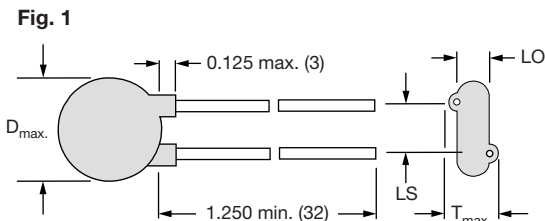
DIELECTRIC STRENGTH BETWEEN LEADS

Component test:

2500 V_{DC}, 2 s

CERAMIC DIELECTRIC

C0K, C0G, U2J, M3K, S3N (Class 1)

DIMENSIONS in inches (millimeters)

ORDERING INFORMATION, CERAMIC 1000 V_{DC} PRECISION CAPACITORS

C (pF)	TOL.	D _{max} . DIAMETER INCH (mm)	T _{max} . THICKNESS INCH (mm)	LS LEAD SPACE INCH (mm) ± 1 mm	LO LEAD OFFSET INCH (mm) ± 0.5 mm	WIRE SIZE		FIG.	ORDERING CODE		
						AWG	INCH (mm)				
C0K (P100)											
1.0	± 0.5 pF	0.250 (6.4)	0.156 (4.0)	0.250 (6.4)	0.098 (2.5)	24	0.020 (0.51)	2	561R10TCCV10		
2.2					0.051 (1.3)				561R10TCCV22		
2.7					0.043 (1.1)				561R10TCCV27		
C0G (NP0)											
3.0	± 0.5 pF	0.250 (6.4)	0.156 (4.0)	0.250 (6.4)	0.063 (1.6)	24	0.020 (0.51)	2	561R10TCCV30		
3.3					0.055 (1.4)				561R10TCCV33		
3.9					0.055 (1.4)				561R10TCCV39		
4.7					0.043 (1.1)				561R10TCCV47		
5.0					0.043 (1.1)				561R10TCCV50		
5.6					0.039 (1.0)				561R10TCCV56		
6.8					0.047 (1.2)				561R10TCCV68		
8.2					0.043 (1.1)				561R10TCCV82		
10					0.051 (1.3)				561R10TCCQ10		
12	± 5 %	0.290 (7.4)	0.156 (4.0)	0.250 (6.4)	0.043 (1.1)	22	0.025 (0.64)	1	561R10TCCQ12		
15					0.039 (1.0)				561R10TCCQ15		
18					0.043 (1.1)				561R10TCCQ18		
20					0.039 (1.0)				561R10TCCQ20		
22					0.039 (1.0)				561R10TCCQ22		
25					0.035 (0.9)				561R10TCCQ25		
27					0.047 (1.2)				561R10TCCQ27		
30					0.051 (1.3)				561R10TCCQ30		
33					0.047 (1.2)				561R10TCCQ33		
39					0.043 (1.1)				561R10TCCQ39		
47					0.051 (1.3)				561R10TCCQ47		
50	0.440 (11.2)	0.156 (4.0)	0.250 (6.4)	0.047 (1.2)	22	0.025 (0.64)	1	561R10TCCQ50			
56				0.047 (1.2)				561R10TCCQ56			
68				0.047 (1.2)				561R10TCCQ68			
82				0.0490 (12.4)				0.156 (4.0)	0.375 (9.5)	0.043 (1.1)	561R10TCCQ82
100				0.560 (14.2)				0.156 (4.0)	0.375 (9.5)	0.047 (1.2)	561R10TCCT10
120										0.047 (1.2)	561R10TCCT12
150										0.043 (1.1)	561R10TCCT15
180				0.680 (17.3)				0.156 (4.0)	0.375 (9.5)	0.043 (1.1)	561R10TCCT18
220				0.760 (19.3)				0.156 (4.0)	0.375 (9.5)	0.043 (1.1)	561R10TCCT22
270	0.890 (22.6)	0.156 (4.0)	0.375 (9.5)	0.047 (1.2)	561R10TCCT27						
U2J (N750)											
33	± 5 %	0.290 (7.4)	0.156 (4.0)	0.250 (6.4)	0.039 (1.0)	24	0.020 (0.51)	2	561R10TCUQ33		
68		0.370 (9.4)	0.156 (4.0)	0.250 (6.4)	0.039 (1.0)	22	0.025 (0.64)		561R10TCUQ68		
M3K (N1000)											
560	± 5 %	0.560 (14.2)	0.156 (4.0)	0.375 (9.5)	0.039 (1.0)	22	0.025 (0.64)	1	561R10TCUT56		
S3N (N3300)											
680	± 5 %	0.630 (16.0)	0.156 (4.0)	0.375 (9.5)	0.047 (1.2)	22	0.025 (0.64)	1	561R10TCUT68		

RELATED DOCUMENTS

General Information

www.vishay.com/doc?23140



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