

## Lower Voltage Ceramic DC Disc Capacitors 1000 V<sub>DC</sub> Precision Capacitors


**RoHS**  
COMPLIANT

**FEATURES**

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

**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
Voltage (V <sub>DC</sub> )	1000		
Min. Capacitance (pF)	1.0	3.0	33
Max. Capacitance (pF)	2.7	270	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**

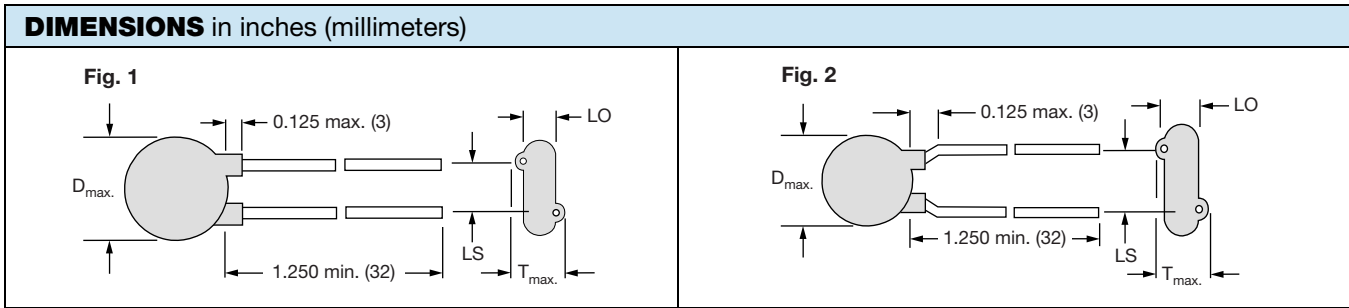
 1000 V<sub>DC</sub>
**DIELECTRIC STRENGTH BETWEEN LEADS**

Component test:

 2500 V<sub>DC</sub>, 2 s

**CERAMIC DIELECTRIC**

C0K, C0G, U2J (class 1)



<b>ORDERING INFORMATION, CERAMIC 1000 V<sub>DC</sub> PRECISION CAPACITORS</b>												
C (pF)	TOL.	D <sub>max.</sub> DIAMETER INCH (mm)	T <sub>max.</sub> 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)					
<b>C0K (P100)</b>												
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			
<b>C0G (NP0)</b>												
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					0.043 (1.1)				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	± 5 %	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					0.490 (12.4)				0.156 (4.0)	0.250 (6.4)	0.047 (1.2)	561R10TCCQ68
82					0.490 (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											0.043 (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
<b>U2J (N750)</b>												
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)	2	561R10TCUQ68			
560		0.650 (16.5)	0.156 (4.0)	0.375 (9.5)	0.039 (1.0)	22	0.025 (0.64)	1	561R10TCUT56			
680		0.710 (18.0)	0.156 (4.0)	0.375 (9.5)	0.047 (1.2)	22	0.025 (0.64)	1	561R10TCUT68			

<b>RELATED DOCUMENTS</b>	
General Information	<a href="http://www.vishay.com/doc?23140">www.vishay.com/doc?23140</a>



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