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## Lower Voltage Ceramic DC Disc Capacitors 1000 V<sub>DC</sub> 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](http://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 <sub>AC</sub> )	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<sub>DC</sub>

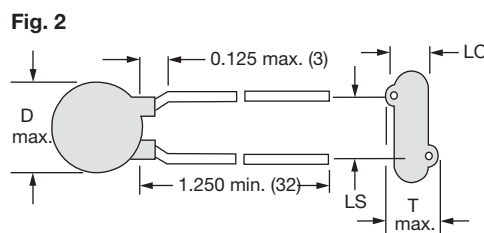
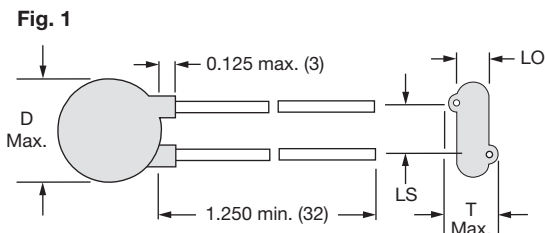
### DIELECTRIC STRENGTH BETWEEN LEADS

Component test:

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

### CERAMIC DIELECTRIC

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

**DIMENSIONS** in inches (millimeters)

**LEAD OFFSET "LO" (nominal)**

1000 V<sub>DC</sub>

0.050" (1.3 mm)

**ORDERING INFORMATION, CERAMIC 1000 V<sub>DC</sub> PRECISION CAPACITORS**

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

**RELATED DOCUMENTS**

General Information

[www.vishay.com/doc?23140](http://www.vishay.com/doc?23140)





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