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

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

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"*.

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)

Fig. 1

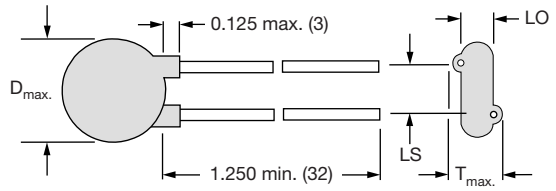
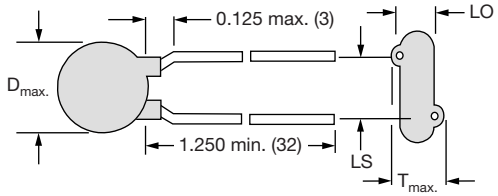


Fig. 2



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 AWG	WIRE SIZE INCH (mm)	FIG.	ORDERING CODE
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	± 5 %				0.051 (1.3)				561R10TCCQ10
12					0.043 (1.1)				561R10TCCQ12
15					0.039 (1.0)				561R10TCCQ15
18		0.290 (7.4)	0.156 (4.0)	0.250 (6.4)	0.043 (1.1)				561R10TCCQ18
20					0.039 (1.0)				561R10TCCQ20
22					0.039 (1.0)				561R10TCCQ22
25					0.035 (0.9)				561R10TCCQ25
27		0.370 (9.4)	0.156 (4.0)	0.250 (6.4)	0.047 (1.2)	22	0.025 (0.64)		561R10TCCQ27
30					0.051 (1.3)				561R10TCCQ30
33					0.047 (1.2)				561R10TCCQ33
39					0.043 (1.1)				561R10TCCQ39
47		0.440 (11.2)	0.156 (4.0)	0.250 (6.4)	0.051 (1.3)			1	561R10TCCQ47
50					0.047 (1.2)				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		0.630 (16.0)	0.156 (4.0)	0.375 (9.5)	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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