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Vishay Cera-Mite

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



QUICK REFERENCE DATA							
DESCRIPTION	VALUE						
Ceramic Class	1		2				
Ceramic Dielectric	COG	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 Ω F or 50 000 M Ω

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

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

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 \pm 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}

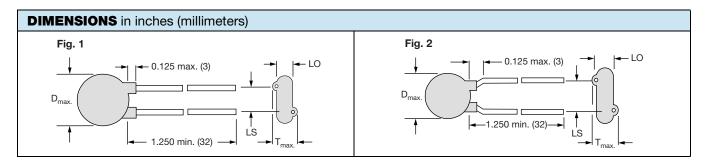
DIELECTRIC STRENGTH BETWEEN LEADS

Component test: 2500 V_{DC}, 2 s

CERAMIC DIELECTRIC

C0G, U2J (Class 1) X5F, X7R (Class 2)

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	TOL.		T _{max.} THICKNESS INCH (mm)	LS LEAD SPACE INCH (mm) ± 1 mm	LO LEAD OFFSET	WIRE SIZE			ORDERING
(pF) (%	(%)				INCH (mm) ± 0.5 mm	AWG	INCH (mm)	FIG.	CODE
COG (NPC									
10	± 10	0.250 (6.4)	0.156 (4.0)	0.250 (6.4)	0.051 (1.3)	24	0.020 (0.51)	2	561R10TSQ10
U2J (N75	0)						r	1	
27	± 10	0.290 (7.4)	0.156 (4.0) 0.156 (4.0)	0.250 (6.4) 0.250 (6.4)	0.047 (1.2)		0.020 (0.51)	2	561R10TSQ27
30					0.039 (1.0)	24			561R10TSQ30
33					0.039 (1.0)				561R10TSQ33
39					0.039 (1.0)				561R10TSQ39
X5F 56	l			1	0.075 (1.9)			l	562R10TSQ56
68					0.073 (1.9)			-	562R10TSQ56
75					0.059 (1.5)				562R10TSQ75
82					0.055 (1.4)				562R10TSQ82
100					0.055 (1.4)				562R10TST10
120					0.051 (1.3)				562R10TST12
150					0.031 (1.3)				562R10TST15
180					0.043 (1.1)				562R10TST18
200		0.250 (6.4)	0.156 (4.0)	0.250 (6.4)	0.039 (1.0)				562R10TST20
220		0.200 (0.4)	0.100 (4.0)	0.200 (0.4)	0.051 (1.3)				562R10TST22
250					0.047 (1.2)				562R10TST25
270					0.043 (1.1)	24	0.020 (0.51)	2	562R10TST27
300					0.039 (1.0)				562R10TST30
330					0.039 (1.0)				562R10TST33
390	± 10	0		-	0.043 (1.1)				562R10TST39
470	0.290				0.039 (1.0)				562R10TST47
500					0.039 (1.0)				562R10TST50
560		0.290 (7.4)	.4) 0.156 (4.0)	0.250 (6.4)	0.047 (1.2)				562R10TST56
680					0.043 (1.1)				562R10TST68
750					0.039 (1.0)				562R10TST75
820		` ,			0.039 (1.0)				562R10TST82
1000	1				0.035 (0.9)				562R10TSD10
1500		0.440 (11.2)	0.156 (4.0)	0.250 (6.4)	0.051 (1.3)				562R10TSD15
2000		0.490 (12.4)	0.156 (4.0)	0.375 (9.5)	0.051 (1.3)				562R10TSD20
2200		0.490 (12.4)	0.156 (4.0)	0.375 (9.5)	0.047 (1.2)	22	0.025 (0.64)	1	562R10TSD22
2700		0.560 (14.2)	0.156 (4.0)	0.375 (9.5)	0.051 (1.3)	22	0.023 (0.04)	'	562R10TSD27
3300		0.560 (14.2)	0.156 (4.0)	0.375 (9.5)	0.047 (1.2)				562R10TSD33
4700		0.680 (17.3)	0.156 (4.0)	0.375 (9.5)	0.051 (1.3)				562R10TSD47
K7R	± 10	0.680 (17.3)							

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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