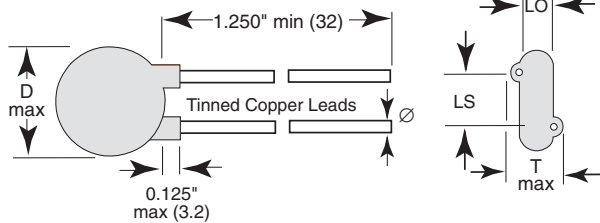


## AC Line Rated Disc Capacitors Class X2, 400 VAC



LO' = 0.77" (2.0) typ

### INSULATION RESISTANCE:

min. 1000  $\Omega$ F

### TOLERANCE ON CAPACITANCE:

$\pm 20\%$ , - 20 + 80 %

### DISSIPATION FACTOR:

2.0 % max. at 1 kHz; 1 V

### CERAMIC DIELECTRIC:

Y5V, Z5U (Class 2)

### CATEGORY TEMPERATURE RANGE:

(- 25 to + 125) °C

### CLIMATIC CATEGORY ACC. TO EN60068-1:

25/125/21

### OPERATING TEMPERATURE RANGE:

(- 30 to + 125) °C

### FEATURES

- Worldwide Safety Agency Recognition  
Underwriters Laboratories - UL1283  
Canadian Standards Association - CSA 22.2  
European EN132400 to IEC 60384-14 Second Edition
- Complete Range of Capacitance Values



**RoHS**  
COMPLIANT

### APPLICATIONS

- Required in AC Power Supply and Filter Applications
- Specific Industry Requirements

### DESIGN

The capacitors consist of a ceramic disc of which both sides are silver-plated. Connection leads are made of tinned copper having a diameter of 0.025" (0.64 mm). The capacitors may be supplied with radial kinked or straight leads having a lead spacing of 0.375" (9.5 mm) or 0.250" (6.4 mm). The standard tolerances are  $\pm 20\%$  or + 80 - 20 %. Coating is made of flame retardant epoxy resin in accordance with "UL94 V-0".

### CAPACITANCE RANGE:

1.0 nF to 0.100  $\mu$ F

### RATED VOLTAGE:

(X2): 400 VAC, 50 Hz (IEC 60384-14.12)

UL 1283: 250 VAC, 60 Hz

CSA 22.2 No.8: 250 VAC, 60 Hz

### DIELECTRIC STRENGTH BETWEEN LEADS:

Component test:

1250 VAC, 50 Hz, 2 seconds

As repeated test admissible only once with:

1080 VAC, 50 Hz, 2 seconds

Random sampling test (destructive test):

1250 VAC, 50 Hz, 60 seconds

### DIELECTRIC STRENGTH OF BODY INSULATION:

2300 VAC, 50 Hz, 60 seconds (destructive test)

# 20VL Series

Vishay Cera-Mite

AC Line Rated Disc Capacitors  
Class X2, 400 VAC



ORDERING INFORMATION, CERAMIC X2 CAPACITORS 20VL							
C (pF)	TOL. (%)	D DIAMETER INCH (mm)	T THICKNESS INCH (mm)	WIRE SIZE		LS LEAD SPACE INCH (mm)	ORDERING CODE
				AWG	INCH (mm)		
<b>Y5V</b>							
0.009 $\mu$ F	$\pm 20\%$	0.530 (13.5)	0.150 (3.8)	22	0.025 (0.64)	0.375 (9.5)	20VLD90-R
0.010 $\mu$ F	$\pm 20\%$	0.620 (15.7)	0.150 (3.8)				20VLS10-R
0.020 $\mu$ F	+ 80 - 20 %	0.720 (18.3)	0.150 (3.8)				20VLS20-R
0.100 $\mu$ F	$\pm 20\%$	0.940 (23.9)	0.240 (6.1)				20VLP10-R*)
<b>Z5U</b>							
0.010 $\mu$ F	+ 80 - 20 %	0.530 (13.5)	0.160 (4.1)	22	0.025 (0.64)	0.250 (6.4)	20VLS10-R

**Note:**

- \*) 20VLP10-R not available with CSA 22.2 no. 8 recognition
- 1. Alternate Lead Spacings of 7.5 mm and 10 mm are available bulk or tape & reel on request.
- 2. European Required Minimum Lead Clearance (Prevents Use of Inside Crimp). 118" (3 mm)

**TAPE & REEL OPTIONS**

To specify T & R, add two letter suffix to the ordering code (Details of the packaging code see general section of the catalog.)

APPROVALS							
<b>IEC 60384 - 14 / 2nd Issue (1993) incl. Am.1 (1995) - Safety Tests</b>							
<b>EN 132 400 (1994) - Safety Tests</b>							
That approval together with CB Test Certificate substitutes the national approval of the following nations:							
Belgium	France	Italy	Austria	China	Japan	Spain	
Denmark	Greece	Luxemburg	Portugal	Singapore	Poland	United Kingdom	
Germany	Ireland	Netherlands	Sweden	Slovenia	Hungaria	Czech Republic	
Finland	Iceland	Norway	Switzerland	Korea	Israel		
X2- Capacitor: CB-Test Certificate:		DE 1-19450	9000 pF to 0.1 $\mu$ F		400 V <sub>AC</sub>		
UNDERWRITERS LABORATORIES							
<b>UL 1283</b>	EMI Filters	E128046 V1S1		9000 pF to 0.1 $\mu$ F	250 V <sub>AC</sub>		
<b>CANADIAN STANDARDS ASSOCIATION</b>							
CSA C22.8	EMI Filter	LR 62016-3	9000 pF to 0.020 $\mu$ F		250 V <sub>AC</sub>		

**Note 1**

- IEC 60384-14 Subclass X Capacitors:
- A capacitor or a type suitable for use in situations where failure of the capacitor would not lead to danger of electric shock.
- Class X capacitors are divided into subclasses according to the peak impulse test voltage superimposed on the main voltage

MARKING	
<p>Sample</p>	<p>Type: 055C140A251BY103ZLA203-R</p> <p>CM PN: 20VLS10-R E3 Qty.: 250 IEC60384-14 / 2: X2 (400~)</p> <p>LOT1: 11642525 DC1: 0622 LOT2: DC2: R.C.: 7032 S.L.: 0010 Op.No.: 771 BATCH NO.: 200622CZ</p> <p>  LR62016 PN: 20VLS10-R</p> <p>PO: 0011642525/0001  </p> <p style="writing-mode: vertical-rl; transform: rotate(180deg);">SN: 29081A69D001</p>



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