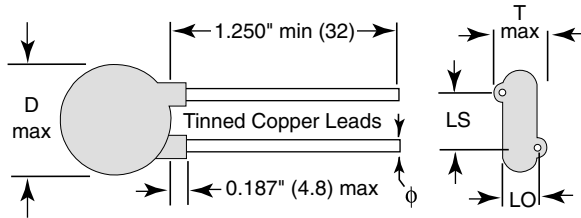


High Voltage Ceramic Disc Capacitors 2 kVDC to 7.5 kVDC

Fig. 1


LEAD OFFSET 'LO'	
NOMINAL	~ Thickness - 0.100"
EXCEPTION	0.07 (1.8 mm) - 565R20GAP10
	0.08 (2.0 mm) - 565R30GASS20
	0.10 (2.54 mm) - 565R30GASS33

INSULATION RESISTANCE:

2 kVDC	min. 10 000 MΩ
3 kVDC	min. 50 000 MΩ
6 kVDC	min. 75 000 MΩ
7.5 kVDC	min. 200 000 MΩ

TOLERANCE ON CAPACITANCE:

± 10 %; ± 20 %, + 80 - 20 %

DISSIPATION FACTOR:

 0.2 % max. at 1 MHz; 1 V
 2.0 % max. at 1 kHz; 1 V

CATEGORY TEMPERATURE RANGE:

(- 25 to + 85) °C

CLIMATIC CATEGORY ACC. TO EN60068-1:

25/085/21

OPERATING TEMPERATURE RANGE:

(- 25 to + 105) °C

FEATURES

- Low losses
- High capacitance in small size
- High stability


**RoHS
COMPLIANT**
APPLICATIONS

- Lighting Ballasts
- SMPS
- DC and Pulse High voltage

DESIGN

The capacitors consist of a ceramic disc of which both sides are silver-plated. Connection leads are made of tinned copper having diameters of 0.025" (0.64 mm) or 0.032" (0.81 mm).

The capacitors may be supplied with straight leads having lead spacing of 0.250" (6.35 mm), 0.375" (9.5 mm) or 0.500" (12.7 mm).

The standard tolerances are ± 10 % or ± 20 %.

Coating is made of resin coating or flame retardant epoxy resin in accordance with "UL94V-0".

CAPACITANCE RANGE:

10 pF to 0.10 μF

RATED VOLTAGE:

 2 kVDC
 3 kVDC
 6 kVDC
 7.5 kVDC

DIELECTRIC STRENGTH BETWEEN LEADS:

Component test:

2 kVDC	3500 VDC, 2 s
3 kVDC	5250 VDC, 2 s
6 kVDC	10 500 VDC, 2 s
7.5 kVDC	11 250 VDC, 2 s

CERAMIC DIELECTRIC:

 C0G, U2J, R3L (Class 1)
 X7R, X5F, X5S, Y5S, Y5U, Y5V, Z5U (Class 2)

564R & 565R Series



Vishay Cera-Mite

High Voltage Ceramic Disc Capacitors
2 kVDC to 7.5 kVDC

ORDERING INFORMATION, CERAMIC 2 kVDC							
C (pF)	TOL. (%)	D DIAMETER INCH (mm)	T THICKNESS INCH (mm)	LS LEAD SPACE INCH (mm)	WIRE SIZE		ORDERING CODE
					AWG	INCH (mm)	
X7R							
100	± 10 %	0.330 (8.4)	0.190 (4.8)	0.250 (6.4)	20	0.032 (0.81)	564R20TST10
220			0.180 (4.6)				564R20TST22
330			564R20TST33				
470			0.170 (4.3)				564R20TST47
560			0.185 (4.7)				564R20TST56
680			0.170 (4.3)				564R20TST68
1000		0.400 (10.2)	0.175 (4.4)	564R20TSD10			
1500		0.430 (10.9)	0.160 (4.1)	564R20TSD15			
1800		0.460 (11.7)	0.170 (4.3)	564R20TSD18			
2200				564R20TSD22			
2700				564R20TSD27			
3300		0.530 (13.5)	0.160 (4.1)	564R20TSD33			
3900				564R20TSD39			
4700		0.680 (17.3)	0.170 (4.3)	564R20TSD47			
				0.375 (9.5)			
Y5S							
1000	± 20 %	0.330 (8.4)	0.175 (4.4)	0.250 (6.4)	20	0.032 (0.81)	564R20TSSD10
1500		0.400 (10.2)	0.170 (4.3)				564R20TSSD15
1800		0.430 (10.9)					564R20TSSD18
2200		0.460 (11.7)					564R20TSSD22
2700		0.530 (13.5)	0.175 (4.4)				564R20TSSD27
3300				564R20TSSD33			
3900		0.620 (15.7)	0.170 (4.3)	564R20TSSD39			
4700		0.680 (17.3)		564R20TSSD47			
5600		0.720 (18.3)		0.170 (4.3)			564R20TSSD56
6800			564R20TSSD68				
Y5U							
1000	± 20 %	0.330 (8.4)	0.170 (4.3)	0.250 (6.4)	20	0.032 (0.81)	564R20GAD10
1500		0.330 (8.4)	0.170 (4.3)				564R20GAD15
Z5U							
1800	± 20 %	0.360 (9.1)	0.170 (4.3)	0.250 (6.4)	20	0.032 (0.81)	564R20GAD18
2200		0.400 (10.2)	0.175 (4.4)				564R20GAD22
2700		0.430 (10.9)					564R20GAD27
3300							564R20GAD33
3900		0.490 (12.4)	0.170 (4.3)	564R20GAD39			
4700				564R20GAD47			
6800		0.560 (14.2)	0.170 (4.3)	564R20GAD68			
0.010 μF		0.680 (17.3)		0.375 (9.5)			564R20GAS10
Y5V							
0.010 μF	± 20 %	0.620 (15.7)	0.170 (4.3)	0.375 (9.5)	20	0.032 (0.81)	564R20GASS10
0.10 μF		0.950 (24.1)	0.240 (6.1)		22	0.025 (0.64)	565R20GAP10

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)



ORDERING INFORMATION, CERAMIC 3 kVDC									
C (pF)	TOL. (%)	D DIAMETER INCH (mm)	T THICKNESS INCH (mm)	LS LEAD SPACE INCH (mm)	WIRE SIZE		ORDERING CODE		
					AWG	INCH (mm)			
U2J (N750)									
10	± 20 %	0.330 (8.4)	0.210 (5.3)	0.250 (6.4)	20	0.032 (0.81)	564R30GAQ10		
12			0.210 (5.3)				564R30GAQ12		
15			0.180 (4.6)				564R30GAQ15		
R3L (N2200)									
22	± 20 %	0.330 (8.4)	0.200 (5.1)	0.250 (6.4)	20	0.032 (0.81)	564R30GAQ22		
27			0.190 (4.8)				564R30GAQ27		
33			0.170 (4.3)				564R30GAQ33		
X7R									
47	± 20 %	0.330 (8.4)	0.230 (5.8)	0.250 (6.4)	20	0.032 (0.81)	564R30GAQ47		
56			0.190 (4.8)				564R30GAQ56		
68			0.200 (5.1)				564R30GAQ68		
100			0.180 (4.6)				564R30GAT10		
150			0.190 (4.8)				564R30GAT15		
220			0.175 (4.4)				564R30GAT22		
270			0.180 (4.6)				564R30GAT27		
330			0.175 (4.4)				0.250 (6.4)	0.375 (9.5)	564R30GAT33
390									564R30GAT39
470			± 10 %				0.330 (8.4)	0.180 (4.6)	0.375 (9.5)
680	0.180 (4.6)	564R30TST68							
1000	0.400 (10.2)	0.175 (4.4)		564R30TSD10					
1500	0.490 (12.5)	0.185 (4.7)		564R30TSD15					
1800	0.530 (13.5)	0.180 (4.6)		564R30TSD18					
2200				564R30TSD22					
2700	0.620 (15.7)	0.185 (4.7)		564R30TSD27					
3300				0.170 (4.3)	564R30TSD33				
3900	0.720 (18.3)	0.185 (4.7)		564R30TSD39					
4700				0.175 (4.4)	564R30TSD47				
6800	0.900 (22.9)	0.185 (4.7)	564R30TSD68						
Y5S									
1000	± 20 %	0.400 (10.2)	0.190 (4.8)	0.250 (6.4)	20	0.032 (0.81)	564R30TSSD10		
1500		0.460 (11.7)					564R30TSSD15		
1800		0.490 (12.4)					564R30TSSD18		
2200		0.530 (13.5)					564R30TSSD22		
2700		0.560 (14.2)					564R30TSSD27		
3300		0.620 (15.7)	0.185 (4.7)	564R30TSSD33					
3900				564R30TSSD39					
4700		0.680 (17.3)	0.375 (9.5)	564R30TSSD47					
5600		0.790 (20.0)	0.190 (4.8)	564R30TSSD56					
6800		0.900 (22.9)	0.205 (5.2)	564R30TSSD68					
Y5U									
680	± 20 %	0.330 (8.4)	0.175 (4.4)	0.250 (6.4)	20	0.032 (0.81)	564R30GAT68		
Z5U									
1000	± 20 %	0.330 (8.4)	0.195 (5.0)	0.250 (6.4)	20	0.032 (0.81)	564R30GAD10		
1500		0.360 (9.1)	0.190 (4.8)				564R30GAD15		
1800		0.400 (10.2)					564R30GAD18		
2200		0.430 (10.9)					564R30GAD22		
2700		0.460 (11.7)					0.200 (5.1)	564R30GAD27	
3300		0.490 (12.4)	0.185 (4.7)	564R30GAD33					
3900		0.530 (13.5)		564R30GAD39					
4700		0.620 (15.7)	0.195 (5.0)	564R30GAD47					
6800		0.680 (17.3)	0.185 (4.7)	0.375 (9.5)	564R30GAD68				
8200					564R30GAD82				
0.010 μF		0.790 (20.0)	0.240 (6.1)	22	564R30GAS10				
0.020 μF		0.720 (18.3)			565R30GASS20				
0.033 μF		0.900 (22.9)			565R30GASS33				
Y5V									
0.010 μF		± 20 %	0.720 (18.3)	0.185 (4.7)	0.375 (9.5)	20	0.032 (0.81)	564R30GASS10	

TAPE & REEL OPTIONS

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564R & 565R Series



Vishay Cera-Mite

High Voltage Ceramic Disc Capacitors
2 kVDC to 7.5 kVDC

ORDERING INFORMATION, CERAMIC 6 kVDC							
C (pF)	TOL. (%)	D DIAMETER INCH (mm)	T THICKNESS INCH (mm)	LS LEAD SPACE INCH (mm)	WIRE SIZE		ORDERING CODE
					AWG	INCH (mm)	
COG (NP0)							
10	± 20 %	0.400 (10.2)	0.220 (5.6)	0.375 (9.5)	20	0.032 (0.81)	564R60GAQ10
U2J (N750)							
22	± 20 %	0.460 (11.7)	0.240 (6.1)	0.375 (9.5)	20	0.032 (0.81)	564R60GAQ22
R3L (N2200)							
33	± 20 %	0.400 (10.2)	0.230 (5.8)	0.375 (9.5)	20	0.032 (0.81)	564R60GAQ33
47		0.460 (11.7)	0.205 (5.2)				564R60GAQ47
X5F							
100	± 20 %	0.400 (10.2)	0.240 (6.1)	0.375 (9.5)	20	0.032 (0.81)	564R60GAT10
220			0.265 (6.7)				564R60GAT22
X5S							
330	± 20 %	0.400 (10.2)	0.260 (6.6)	0.375 (9.5)	20	0.032 (0.81)	564R60GAT33
Y5U							
470	± 20 %	0.400 (10.2)	0.265 (6.7)	0.375 (9.5)	20	0.032 (0.81)	564R60GAT47
560			0.240 (6.1)				564R60GAT56
Z5U							
1000	± 20 %	0.400 (10.2)	0.270 (6.9)	0.375 (9.5)	20	0.032 (0.81)	564R60GAD10
1500		0.460 (11.7)	0.280 (7.1)				564R60GAD15
2200		0.530 (13.5)	0.240 (6.1)				564R60GAD22
3300		0.620 (15.7)	0.260 (6.6)				564R60GAD33
4700		0.790 (20.0)					564R60GAD47
0.010 μF		0.950 (24.1)	0.250 (6.4)				564R60GAS10

ORDERING INFORMATION, CERAMIC 7.5 kVDC							
C (pF)	TOL. (%)	D DIAMETER INCH (mm)	T THICKNESS INCH (mm)	LS LEAD SPACE INCH (mm)	WIRE SIZE		ORDERING CODE
					AWG	INCH (mm)	
X5F							
100	± 20 %	0.530 (13.5)	0.310 (7.9)	0.500 (12.7)	20	0.032 (0.81)	564R75GAT10
470		0.620 (15.7)	0.270 (6.9)				564R75GAT47
Y5U							
1000	+ 80/- 20 %	0.620 (15.7)	0.320 (8.1)	0.500 (12.7)	20	0.032 (0.81)	564R75GAD10
Z5U							
2500	+ 80/- 20 %	0.620 (15.7)	0.280 (7.1)	0.500 (12.7)	20	0.032 (0.81)	564R75GAD25

TAPE & REEL OPTIONS

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