715C...DK...



www.vishay.com

Vishay Cera-Mite

High Voltage Class 2 Ceramic DC Disc Capacitors, 10 kV_{DC} to 40 kV_{DC} / 3.5 kV_{AC} to 14 kV_{AC}, Screw Terminal Mounting



DESIGN SUPPORT TOOLS AVAILABLE

3-0 **3D Models**

FEATURES

- Class 2 ceramic (Y5U)
- Low inductance
- High insulation resistance
- Epoxy coating
- Screw terminal mounting
- · Ceramic singlelayer capacitor
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912

APPLICATIONS

- High voltage power supplies
- CO₂ lasers
- X-ray equipment
- Welding equipment
- Industrial

QUICK REFERENCE DATA						
DESCRIPTION	VALUE					
Ceramic Class	2					
Ceramic Dielectric	Y5U					
Туре	715C10DK###	715C15DK###	715C20DK###	715C30DK###	715C40DK###	
Voltage (V _{DC})	10 000	15 000	20 000	30 000	40 000	
Min. Capacitance (pF)	10 000	1500	500	500	300	
Max. Capacitance (pF)	20 000	10 000	6800	4700	3300	
Mounting	Screw terminal					

DIELECTRIC STRENGTH

150 % of rated voltage, charging current limited to 50 mA.

DISSIPATION FACTOR tan δ

 \leq 20 x 10⁻³ (1 kHz)

INSULATION RESISTANCE

Min. 200 000 MΩ or 1000 ΩF min. at 25 °C.

CORONA LIMIT

< 5 pC at 50 % rated AC voltage.

OPERATING TEMPERATURE RANGE

-30 °C to +85 °C

CAPACITANCE RANGE

300 pF to 20 nF

CAPACITANCE TOLERANCES

-20 % to +80 %

CERAMIC DIELECTRIC

Y5U (Class 2)

RATED VOLTAGE⁽¹⁾

- 10 kV_{DC} (3.5 kV_{RMS})
- 15 kV_{DC} (5.3 kV_{RMS})
- 20 kV_{DC} (7.0 kV_{RMS})
- 30 kV_{DC} (10.6 kV_{RMS})
- 40 kV_{DC} (14.0 kV_{RMS})

Note

⁽¹⁾ All kV_{RMS} up to 60 Hz

MATERIAL

Capacitor elements made from class 2 ceramic in a molded epoxy case. Screw terminals: brass, silver plated.

MARKING

Type designator, capacitance value, rated DC voltage, ceramic material code, production date code, Cera-mite logo.

POWER DISSIPATION

Limit to 20 °C rise above ambient, measured on case.

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For technical questions, contact: powcap@vishay.com

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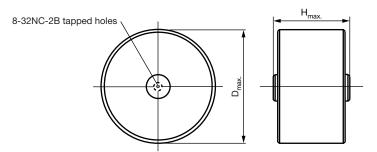


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DIMENSIONS



Notes

- Screw torque limit must be 12 inch pounds. Use #8-32, 3/16" long screw to prevent bottoming
- M5 metric terminals available on request, consult factory

ORDERING INFORMATION					
715C15DKD20	15 kV _{DC}	2000 pF	-20 % TO +80 %	Y5U	
MODEL	RATED VOLTAGE	CAPACITANCE VALUE	TOLERANCE	CERAMIC	

MODEL	CERAMIC	CAPACITANCE VALUES (pF)	RATED VOLTAGE (kV _{DC})	RATED VOLTAGE (kV _{RMS})	D _{max.}	H _{max.}
715C10DK###						
715C10DKS10	Y5U	10 000	- 10	3.5	45.7 (1.80)	22.0 (0.87)
715C10DKS20	150	20 000			54.1 (2.13)	19.8 (0.78)
715C15DK###						
715C15DKD15		1500	15	5.3	26.7 (1.05)	22.9 (0.90)
715C15DKD20		2000			33.0 (1.30)	
715C15DKD33	Y5U	3300			39.4 (1.55)	
715C15DKD47		4700			33.0 (1.30)	
715C15DKS10		10 000			45.7 (1.80)	
715C20DK###					•	•
715C20DKT50		500		7.0	22.4 (0.88)	25.4 (1.00)
715C20DKD10		1000			31.8 (1.25)	
715C20DKD13	Y5U	1300	20		33.0 (1.30)	
715C20DKD25		2500			39.4 (1.55)	
715C20DKD33		3300			45.7 (1.80)	
715C20DKD47		4700			54.1 (2.13)	
715C20DKD68		6800			61.5 (2.42)	
715C30DK###		1				I.
715C30DKT50		500		1	26.7 (1.05)	34.5 (1.36)
715C30DKD10		1000			33.0 (1.30)	
715C30DKD25	Y5U	2500	30	10.6	45.7 (1.80)	30.0 (1.18)
715C30DKD33		3300			54.1 (2.13)	
715C30DKD47		4700			61.5 (2.42)	
715C40DK###					· · · ·	
715C40DKT30		300			22.4 (0.88)	34.5 (1.36)
715C40DKT50		500	40	14.0	26.7 (1.05)	
715C40DKT78	Y5U	780			33.0 (1.30)	
715C40DKD10		1000			39.4 (1.55)	
715C40DKD16		1600			45.7 (1.80)	
715C40DKD25		2500			54.1 (2.13)	
715C40DKD33		3300			58.4 (2.30)	

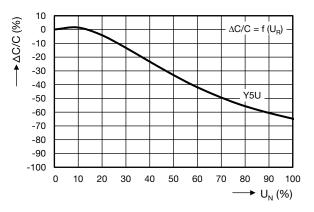
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Vishay Cera-Mite

CAPACITANCE CHANGE VS. VOLTAGE (typical)



RELATED DOCUMENTS			
General Information	www.vishay.com/doc?23140		
3D Models	www.vishay.com/doc?22174		



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