RF Power Feed-Through Capacitors with Band Conductor, Class 1 Ceramic



QUICK REFERENCE DATA		
DESCRIPTION	VALUE	
Ceramic Class	1	
Ceramic Dielectric	R85	R85, R230
Type	DS 030070	DS 030110
Voltage (V_p)	8000	12 000
Min. Capacitance (pF)	500	800
Max. Capacitance (pF)	800	1800
Mounting	Screw terminal	

MATERIAL

Capacitor elements made from class 1 ceramic dielectric with noble metal electrodes.

Connection terminals:
made from copper / brass, silver plated

FINISH

Capacitor body completely protective lacquered.
The contoured insulating rims are additionally glazed.

MARKING

Type designator, capacitance value and tolerance, rated peak voltage, ceramic material code, production date code, manufacturer logo

FEATURES

- Small size
- Geometry minimizes inductance
- High feed-through currents

APPLICATIONS

Filtering purposes in industrial and medical RF power equipment, where high voltages and high feed-through currents are required.

CAPACITANCE RANGE

500 pF to 1.8 nF

CAPACITANCE TOLERANCE

± 20 %; ± 10 %; ± 5 %

CERAMIC DIELECTRICS

- R85 (TCC - 750 ppm/K)
- R230 (TCC - 750 ppm/K)

RATED VOLTAGE

- 8.0 kV_p
- 12.0 kV_p

DIELECTRIC STRENGTH TEST

200 % of rated AC voltage (50 Hz, 5 minutes)

DISSIPATION FACTOR

Max. 0.05 %

Measuring frequencies:
1 MHz (< 1 nF); 300 kHz or 100 kHz (≥ 1 nF)

INSULATION RESISTANCE

Min. 100 000 MΩ (at 25 °C)

OPERATING TEMPERATURE RANGE

-55 °C to +100 °C

For technical questions, contact: powcap@vishay.com

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SAP PART NUMBER AND ELECTRICAL DATA						
PART NUMBER	CERAMIC	CAP. VALUES (pF)	RATED VOLTAGE (kV_P)	RATED POWER (1) (kvar)	RATED CURRENT (A_{RMS})	FEED-THROUGH CURRENT (2) (A)
TYPE DS 030070						
DS030070BP501##BJ1	R85	500	8	16	10	20
DS030070BP601##BJ1		600				
DS030070BP801##BJ1		800				
TYPE DS 030110						
DS030110WF801##BJ2	R85	800	12	30	10	20
DS030110WF182##BK1	R230	1800				

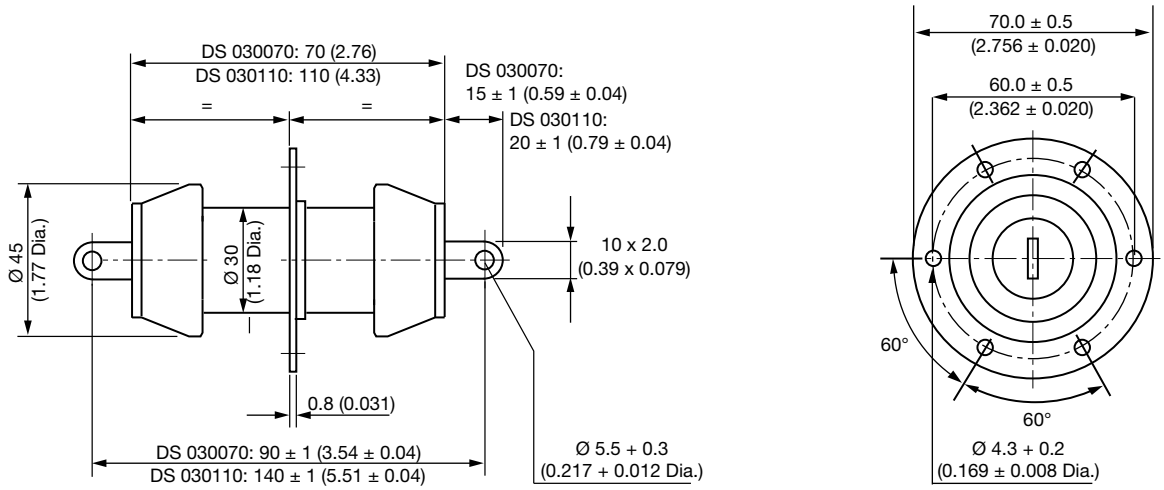
Notes

- ## 14th to 15th digit: capacitance tolerance code ± 20 % = 38, ± 10 % = 36, ± 5 % = 33

(1) The surface temperature during operation must not exceed +100 °C

(2) DC or low frequency RMS current (< 20 kHz)

DIMENSIONS in millimeters (inches)



MOUNTING GUIDELINES

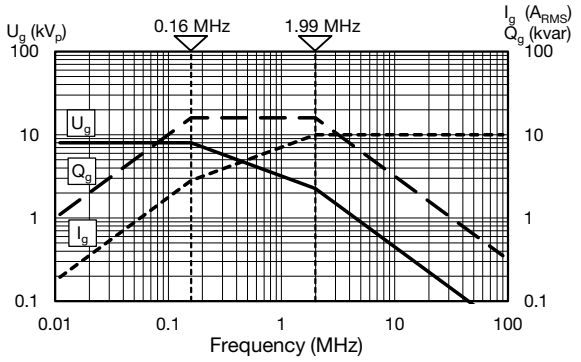
- The connection to one electrode must be flexible in order to prevent the generation of physical force which could damage the capacitor elements. Such forces are often generated by the dimensional differences resulting from the normal physical tolerances of these components.
- The capacitor elements must not be used as a mechanical support for other devices or components.

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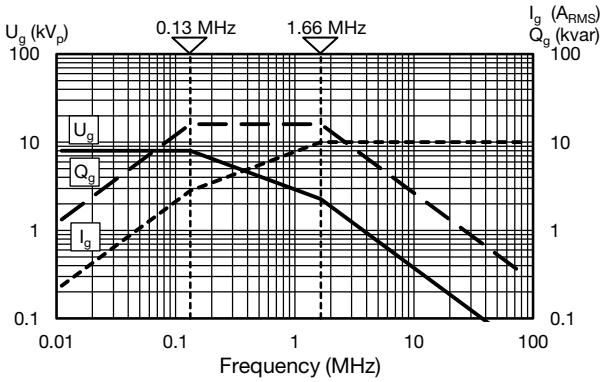
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DERATING DIAGRAMS

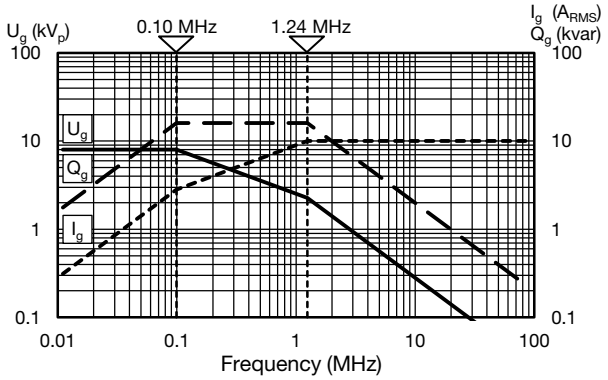
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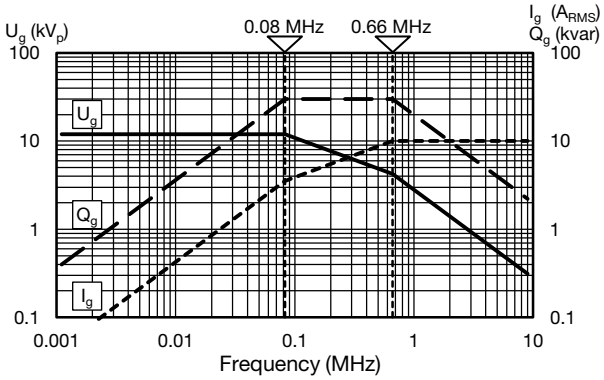
DS030070BP601##BJ1



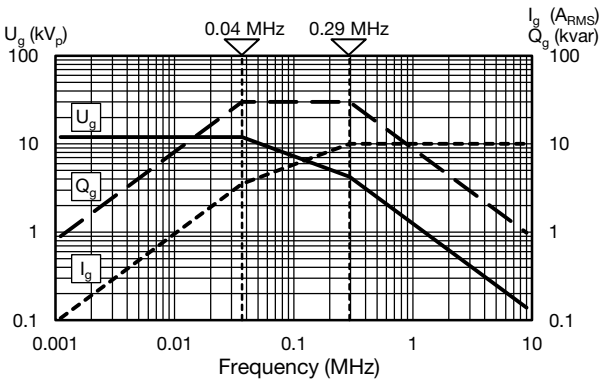
DS030070BP801##BJ1



DS030110WF801##BJ2



DS030110WF182##BK1



RELATED DOCUMENTS

General Information	www.vishay.com/doc?22071

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