RF Power Feed-Through Capacitors with Mounting Tags, Class 1 Ceramic



QUICK REFERENCE DATA			
DESCRIPTION	VALUE		
Ceramic Class	1		
Ceramic Dielectric	R85		
Type	DF 030070	DF 030090	DF 030110
Voltage (V_p)	7000		
Min. Capacitance (pF)	400	700	800
Max. Capacitance (pF)	800	1200	1500
Mounting	Screw terminal		

MATERIAL

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

Connection terminals:
made from copper / brass, silver plated

For higher feed-through current, an additional feed-through conductor must be provided.

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
- Wide range of capacitance values

APPLICATIONS

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

CAPACITANCE RANGE

400 pF to 1.5 nF

CAPACITANCE TOLERANCE

± 20 %; ± 10 %; ± 5 %

CERAMIC DIELECTRICS

R85 (TCC -750 ppm/K)

RATED VOLTAGE

7.0 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 DF 030070						
DF030070VY401##BJ1	R85	400	7	16	8	8
DF030070VY501##BJ1		500				
DF030070VY601##BJ1		600				
DF030070VY801##BJ1		800				
TYPE DF 030090						
DF030090VY701##BJ1	R85	700	7	20	8	8
DF030090VY102##BJ1		1000				
DF030090VY122##BJ1		1200				
TYPE DF 030110						
DF030110VY801##BJ1	R85	800	7	25	8	8
DF030110VY122##BJ1		1200				
DF030110VY152##BJ1		1500				

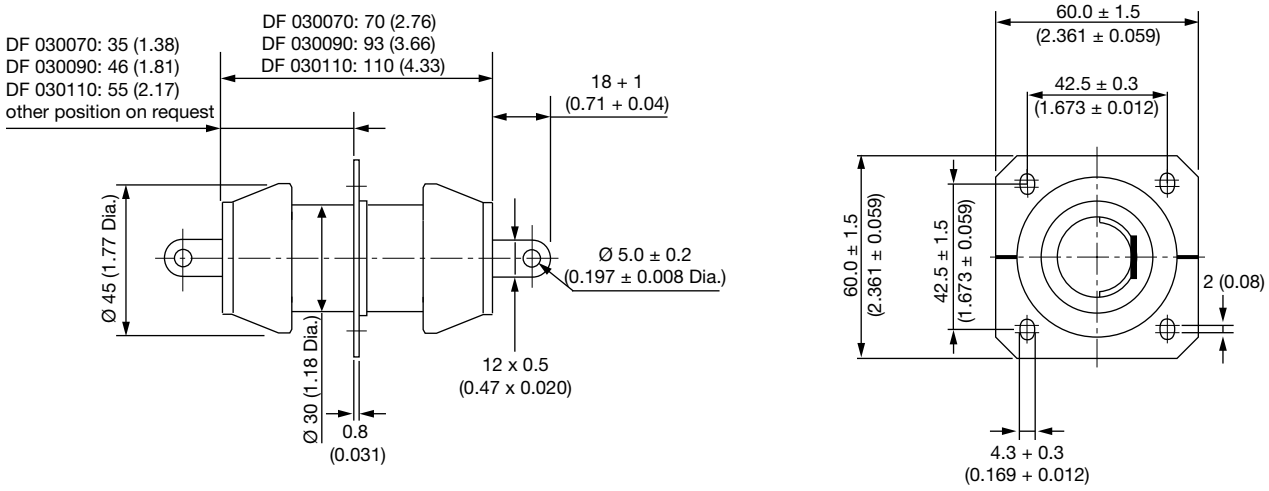
Notes

- ## 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

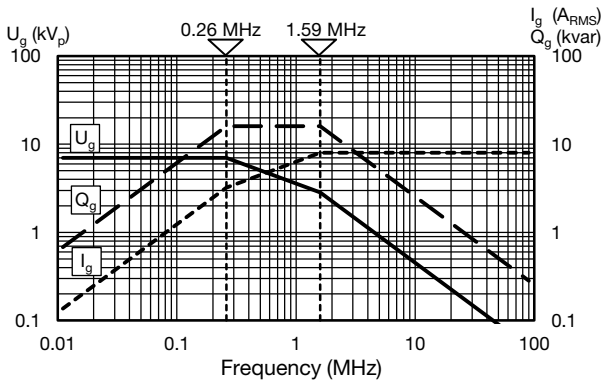
- The connection to one electrode must be flexible in order to prevent the generation of physical force which could damage the capacitor elements. Such forces are often generated by the dimensional differences resulting from the normal physical tolerances of these components.
- The capacitor elements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

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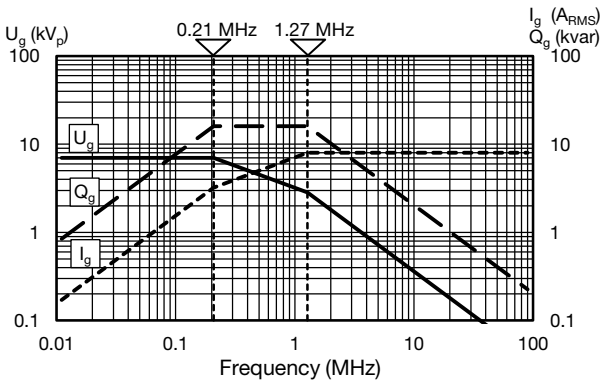
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DERATING DIAGRAMS

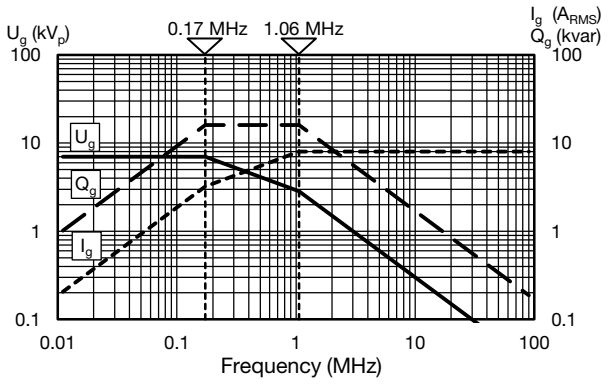
DF0130070VY401##BJ1



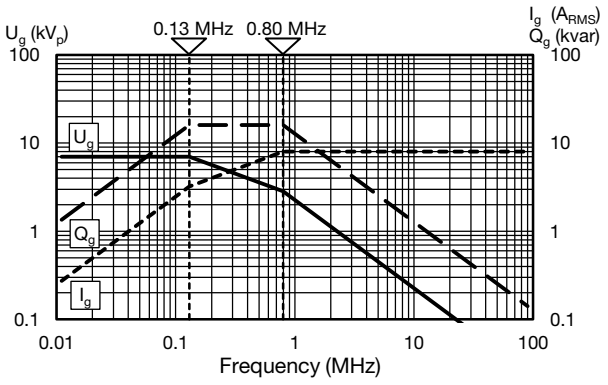
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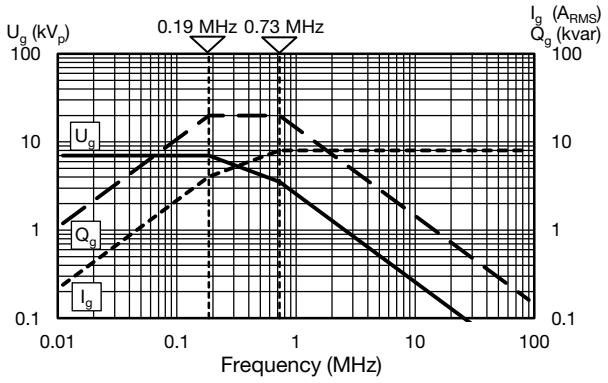
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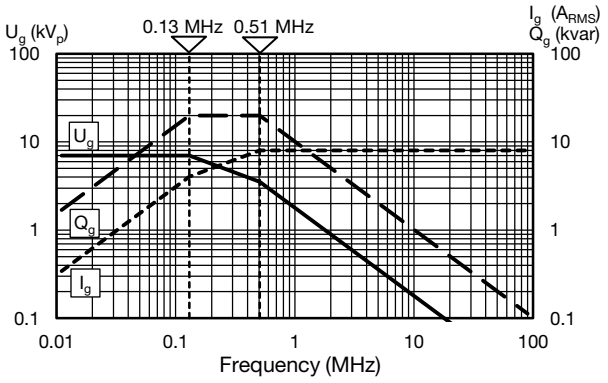
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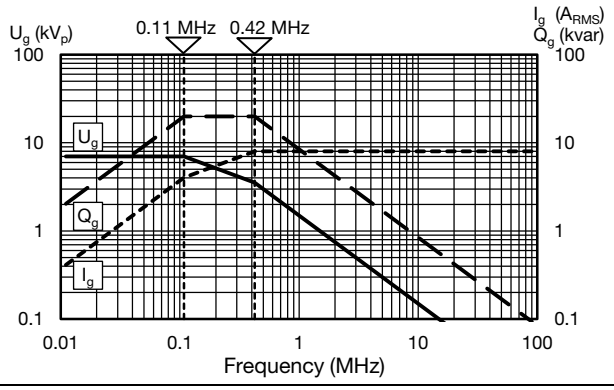
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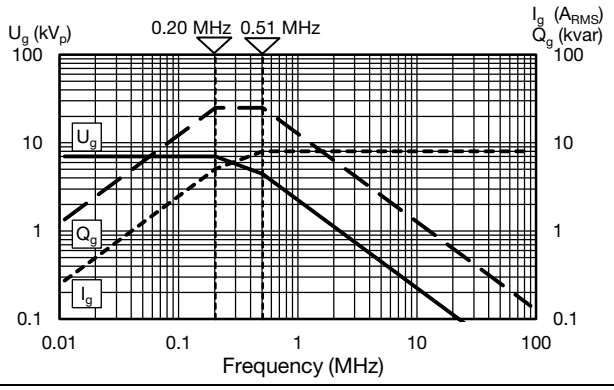
DF030090VY102##BJ1



DF030090VY122##BJ1



DF030110VY801##BJ1

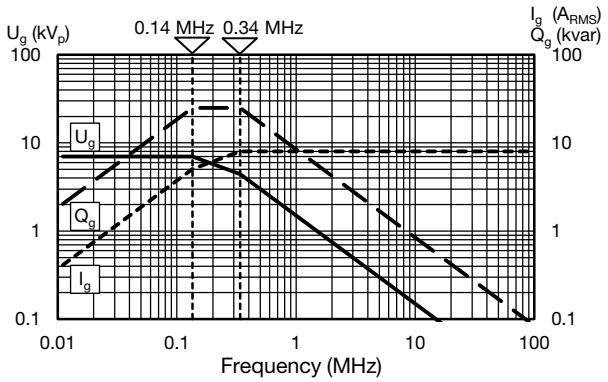


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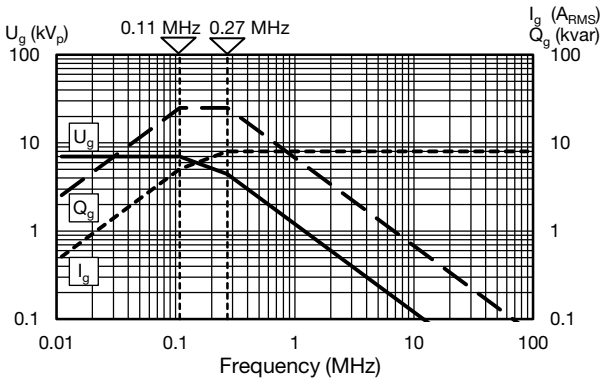
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DERATING DIAGRAMS

DF030110VY122##BJ1



DF030110VY152##BJ1



RELATED DOCUMENTS

General Information	www.vishay.com/doc?22071

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