

## RF Power Tubular Capacitors with Screw Terminals and Mounting Tags, Class 1 Ceramic



QUICK REFERENCE DATA				
DESCRIPTION	VALUE			
Ceramic Class	1			
Ceramic Dielectric	R7, R16, R42, R85	R16, R42, R85, R230		
Type	RD 030100		RD 045120	
Voltage (V <sub>p</sub> )	7000	8000	10 000	11 000
Min. Capacitance (pF)	1500	100	800	200
Max. Capacitance (pF)	1500	1200	4700	3000
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.

### ACCESSORIES ADDED

All capacitors are supplied with the necessary Hex. nuts and washers to make the connection to the conductor rod.

### FEATURES

- High voltage ratings
- High reliability
- Wide range of capacitance values

### APPLICATIONS

- Induction and dielectric heating
- Antenna units
- Filter, bypass, and coupling circuits

### CAPACITANCE RANGE

100 pF to 4.7 nF

### CAPACITANCE TOLERANCE

± 20 %; ± 10 %; ± 5 %

### CERAMIC DIELECTRICS

- R7 (TCC + 100 ppm/K)
- R16 (TCC + 100 ppm/K)
- R42 (TCC - 250 ppm/K)
- R85 (TCC - 750 ppm/K)
- R230 (TCC - 750 ppm/K)

### RATED VOLTAGE

- 7.0 kV<sub>p</sub>
- 8.0 kV<sub>p</sub>
- 10 kV<sub>p</sub>
- 11 kV<sub>p</sub>

### DIELECTRIC STRENGTH TEST

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

### DISSIPATION FACTOR

R7: max. 0.07 %  
R16: max. 0.04 %  
R42, R85, R230: 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



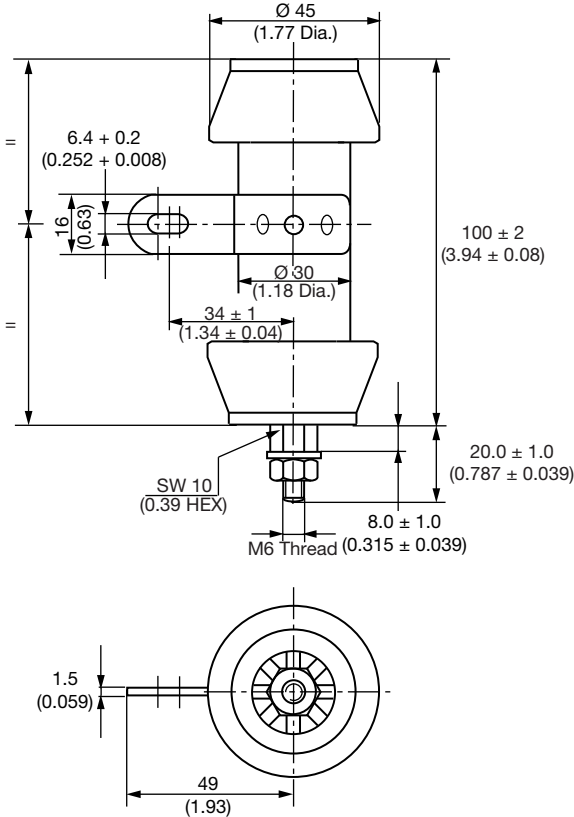
SAP PART NUMBER AND ELECTRICAL DATA					
PART NUMBER	CERAMIC	CAP. VALUES (pF)	RATED VOLTAGE (kV <sub>p</sub> )	RATED POWER <sup>(1)</sup> (kvar)	RATED CURRENT (A <sub>RMS</sub> )
<b>TYPE RD 030100</b>					
RD030100BP101##BF1	R7	100	8.0	30	30
RD030100BP121##BG1	R16	120			
RD030100BP161##BG1		160			
RD030100BP201##BG1		200			
RD030100BP251##BH1		R42			
RD030100BP301##BH1	300				
RD030100BP401##BH1	400				
RD030100BP501##BH1	500				
RD030100BP601##BJ1	R85				
RD030100BP801##BJ1		800			
RD030100BP102##BJ1		1000			
RD030100BP122##BJ1		1200			
RD030100VY152##BJ1		1500			
<b>TYPE RD 045120</b>					
RD045120WE201##BG1	R16	200	11	60	50
RD045120WE251##BG1		250			
RD045120WE301##BG1		300			
RD045120WE401##BH1	R42	400			
RD045120WE501##BH1		500			
RD045120WE601##BH1		600			
RD045120BH801##BH1		800	10		
RD045120WE102##BJ1	R85	1000	11		
RD045120WE122##BJ1		1200			
RD045120BH152##BJ1		1500	10		
RD045120WE202##BK1		R230	2000	11	
RD045120WE302##BK1	3000				
RD045120BH472##BK1	4700		10		

Notes

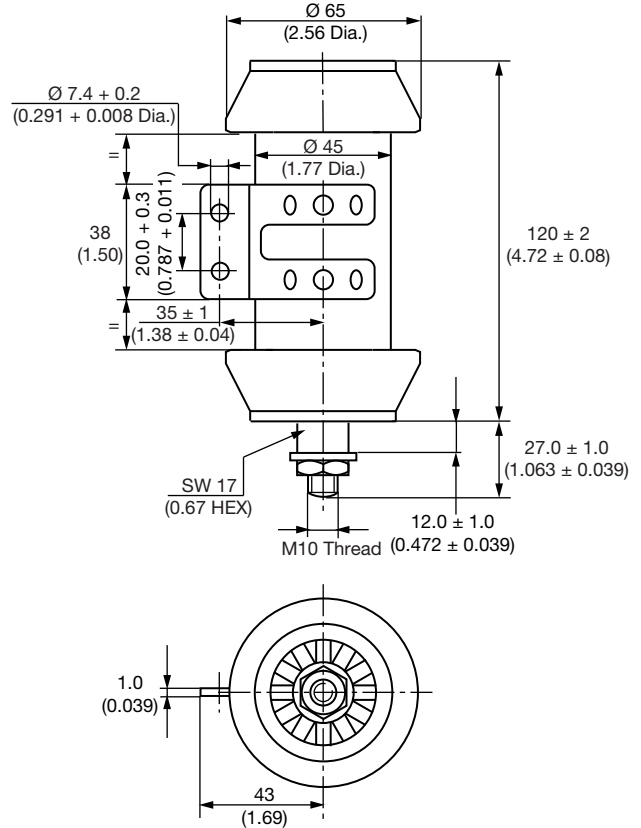
- ## 14<sup>th</sup> to 15<sup>th</sup> digit: capacitance tolerance code ± 20 % = 38, ± 10 % = 36, ± 5 % = 33
- (1) The surface temperature during operation must not exceed +100 °C

**DIMENSIONS** in millimeters (inches)

**RD 030100**

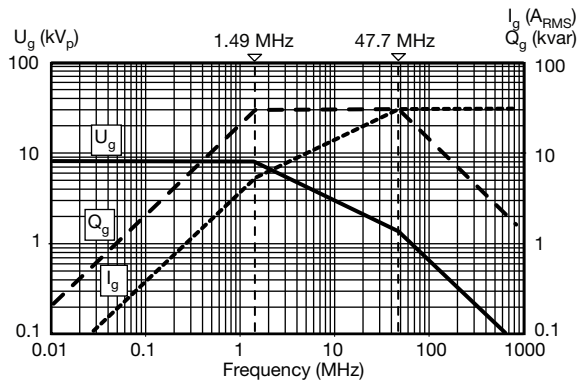


**RD 045120**

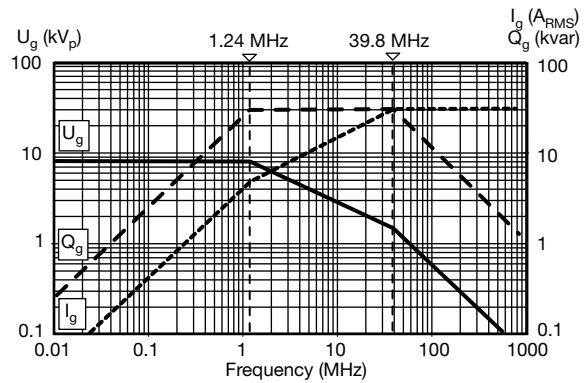


**DERATING DIAGRAMS**

RD030100BP101##BF1



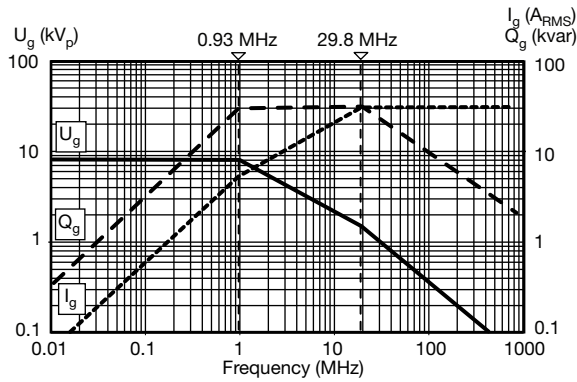
RD030100BP121##BG1



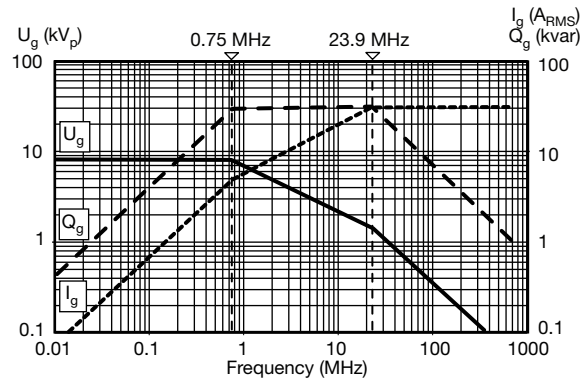


DERATING DIAGRAMS

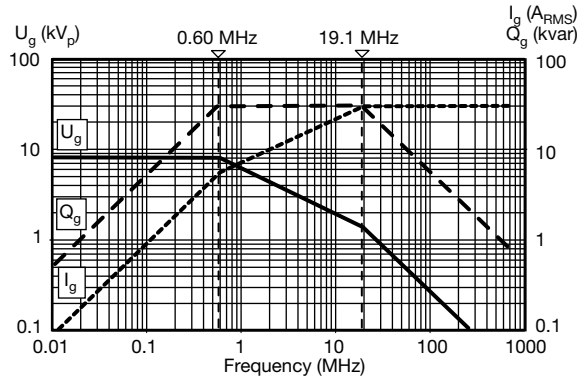
RD030100BP161##BG1



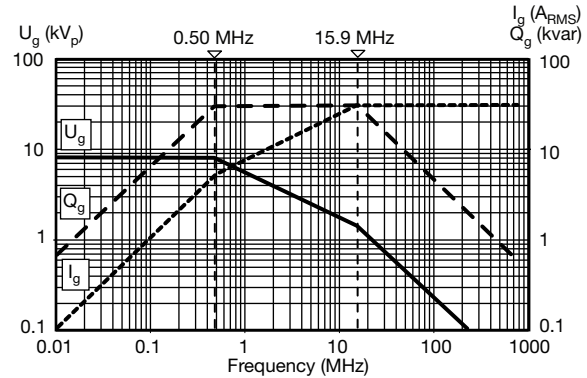
RD030100BP201##BG1



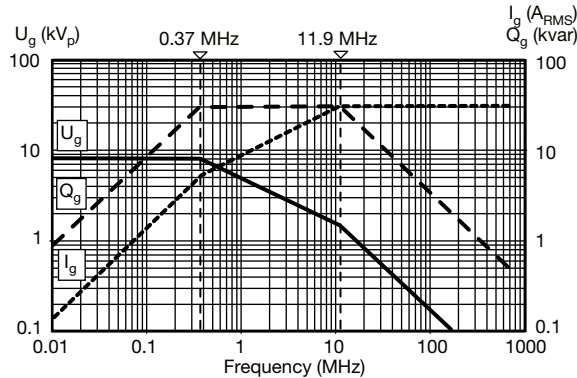
RD030100BP251##BH1



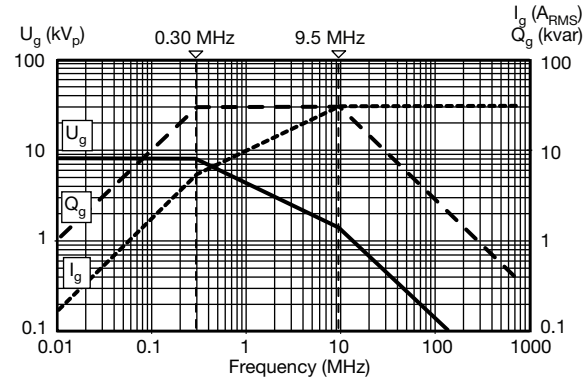
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RD030100BP401##BH1



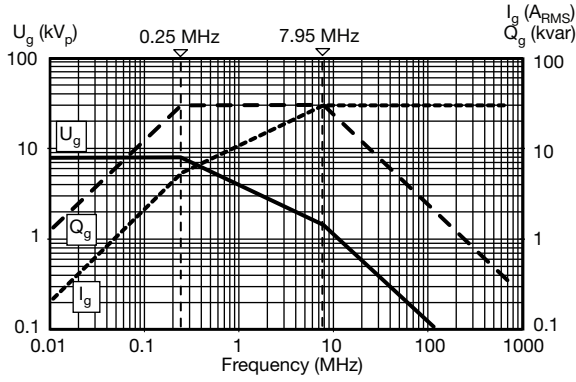
RD030100BP501##BH1



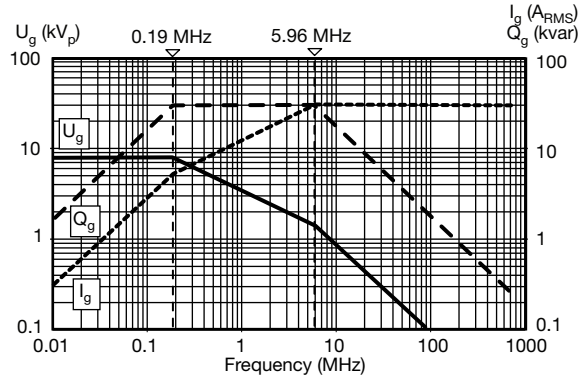


DERATING DIAGRAMS

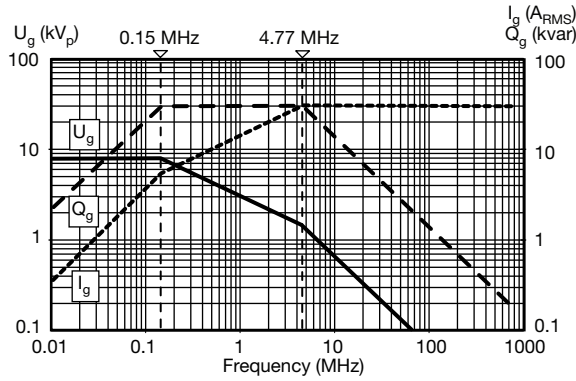
RD030100BP601##BJ1



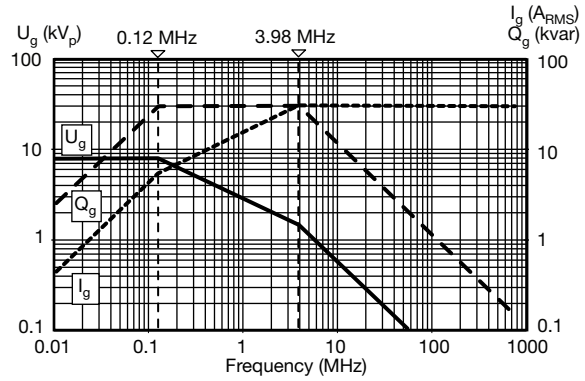
RD030100BP801##BJ1



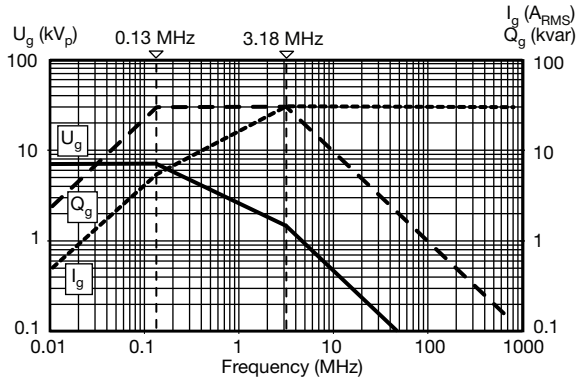
RD030100BP102##BJ1



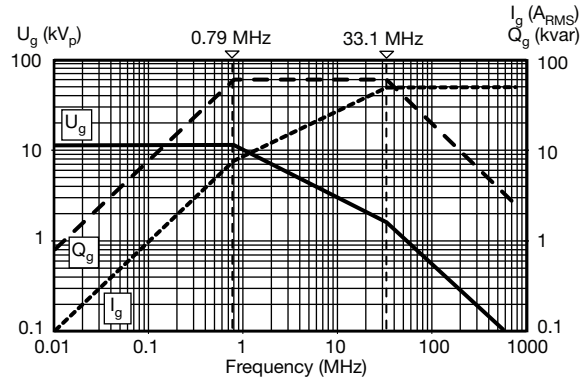
RD030100BP122##BJ1



RD030100VY152##BJ1



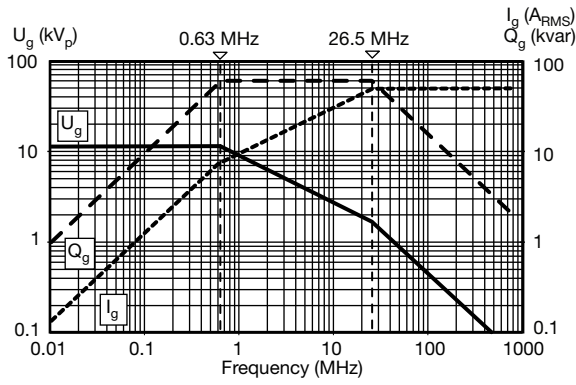
RD045120WE201##BG1



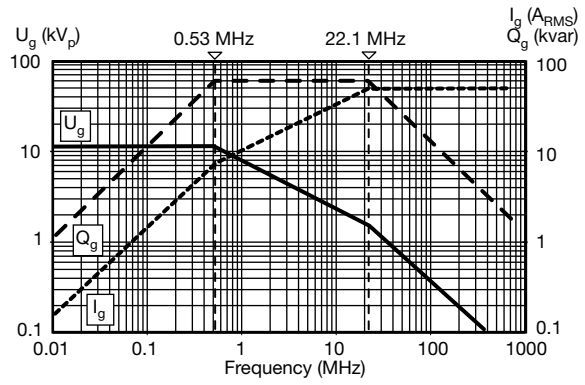


DERATING DIAGRAMS

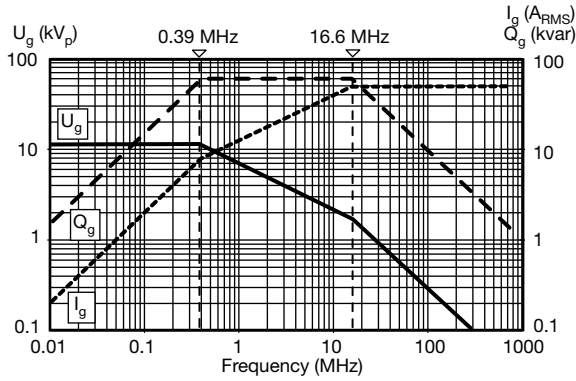
RD045120WE251##BG1



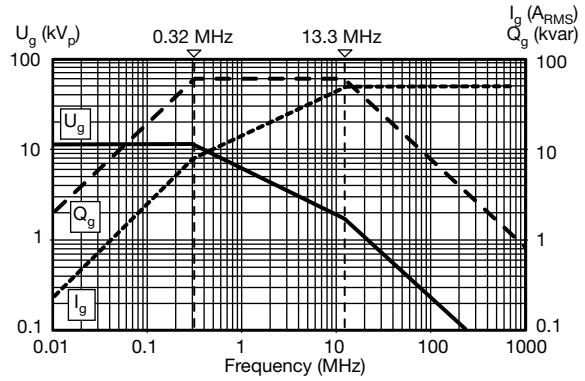
RD045120WE301##BG1



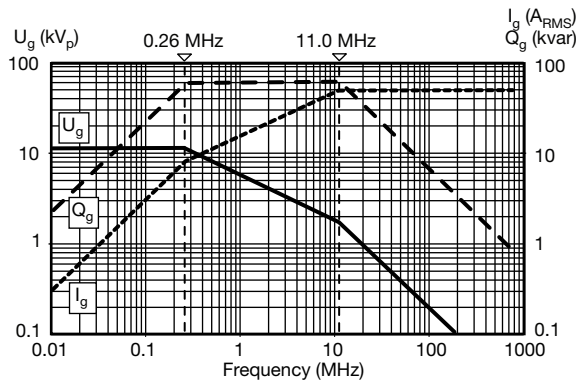
RD045120WE401##BH1



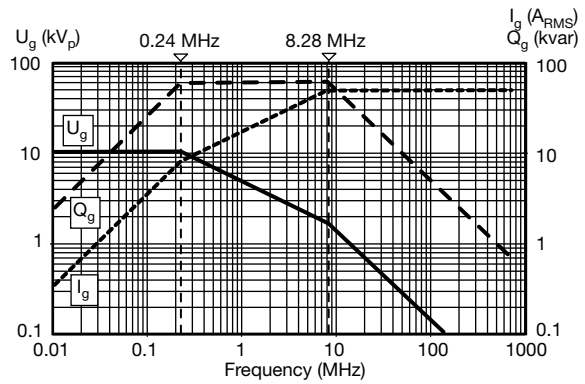
RD045120WE501##BH1



RD045120WE601##BH1

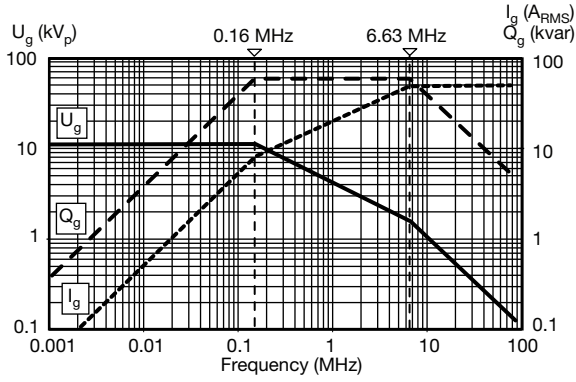


RD045120BH801##BH1

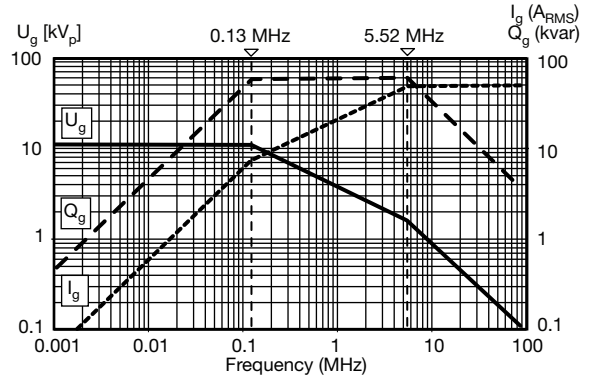


**DERATING DIAGRAMS**

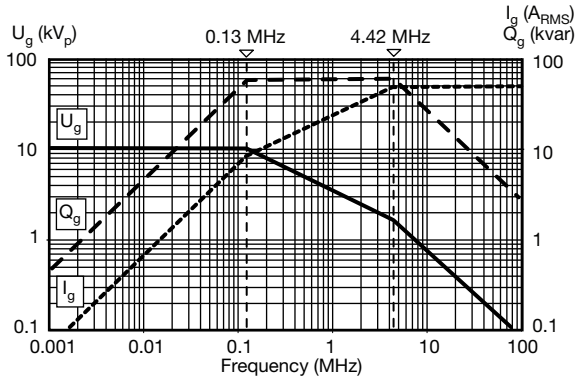
RD045120WE102##BJ1



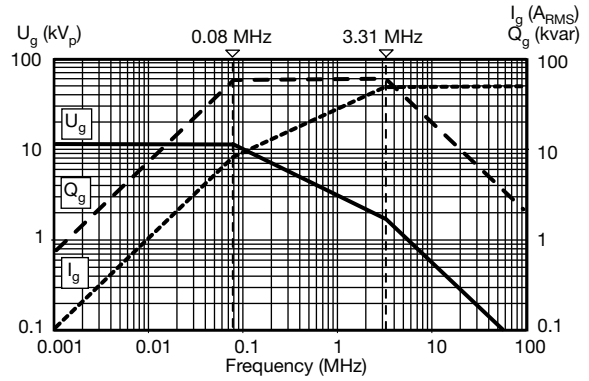
RD045120WE122##BJ1



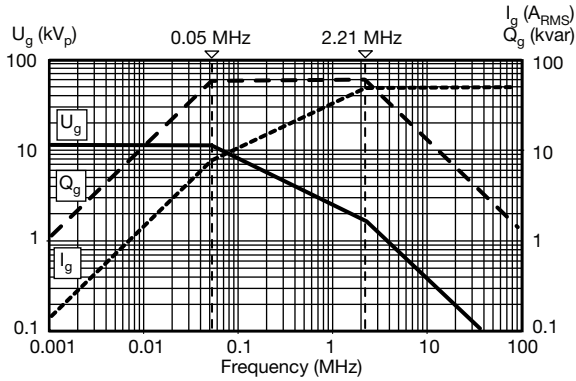
RD045120BH152##BJ1



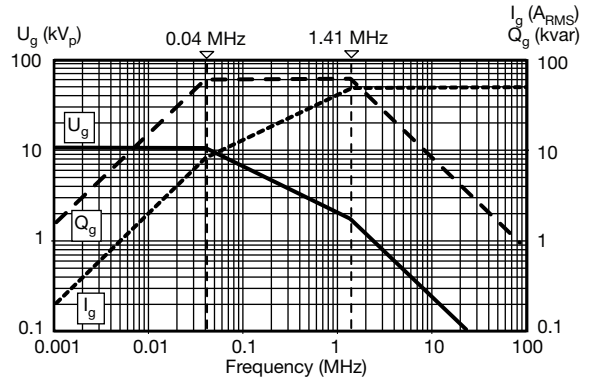
RD045120WE202##BK1



RD045120WE302##BK1



RD045120BH472##BK1



**RELATED DOCUMENTS**

General Information

[www.vishay.com/doc?22071](http://www.vishay.com/doc?22071)



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