RF Power Pot Capacitors
With Mounting Tags, Class 1 Ceramic

FEATURES

- Small size
- High reliability
- Wide range of capacitance values

APPLICATIONS

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

QUICK REFERENCE DATA

DESCRIPTION	VALUE						
Ceramic class	1						
Ceramic dielectric	R7, R16, R42, R85						
Type	TD 020030			TD 020050		TD 020080	
Voltage (V_p)	6000	7000	8000	7000	8000	7000	8000
Min. capacitance (pF)	100	80	10	200	20	1200	40
Max. capacitance (pF)	400	250	160	600	500	1200	1000
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 rim is additionally glazed.

MARKING

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

CAPACITANCE RANGE

10 pF to 1.2 nF

CAPACITANCE TOLERANCE

± 20 %; ± 10 %; ± 5 %

DIELECTRIC STRENGTH TEST

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

CERAMIC DIELECTRICS

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

RATED VOLTAGE

- 6.0 kV_p
- 7.0 kV_p
- 8.0 kV_p

DISSIPATION FACTOR

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

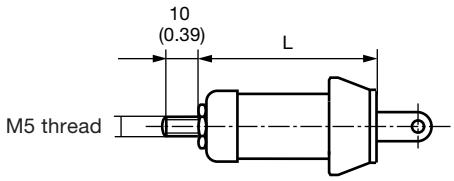
SAP PART NUMBER AND ELECTRICAL DATA					
PART NUMBER	**CERAMIC**	**CAP. VALUES (pF)**	**RATED VOLTAGE (kV_p)**	**RATED POWER [1] (kvar)**	**RATED CURRENT (A_{RMS})**
TYPE TD 020030					
TD020030BP100##BF1	R7	10	8.0	3.5	6.0
TD020030BP160##BF1		16			
TD020030BP200##BF1		20			
TD020030BP250##BG1	R16	25			
TD020030BP400##BG1		40			
TD020030BP500##BH1	R42	50		4.2	
TD020030BP600##BH1		60			
TD020030VY800##BH1		80	7.0		
TD020030BF101##BH1		100	6.0		
TD020030BP121##BJ1	R85	120	8.0		
TD020030BP161##BJ1		160			
TD020030VY201##BJ1		200	7.0		
TD020030VY251##BJ1		250			
TD020030BF301##BJ1		300	6.0		
TD020030BF401##BJ1		400			
TYPE TD 020050					
TD020050BP200##BF1	R7	20	8.0	5.6	6.0
TD020050BP250##BF1		25			
TD020050BP400##BG1	R16	40			
TD020050BP500##BG1		50			
TD020050BP600##BG1		60			
TD020050BP800##BG1		80			
TD020050BP101##BH1	R42	100		7.0	
TD020050BP161##BH1		160			
TD020050VY201##BH1		200	7.0		
TD020050BP251##BJ1	R85	250	8.0		
TD020050BP301##BJ1		300			
TD020050BP401##BJ1		400			
TD020050BP501##BJ1		500			
TD020050VY601##BJ1		600	7.0		
TYPE TD 020080					
TD020080BP400##BF1	R7	40	8.0	8.5	7.0
TD020080BP600##BF1		60			
TD020080BP800##BG1	R16	80			
TD020080BP101##BG1		100			
TD020080BP121##BG1		120			
TD020080BP161##BG1		160			
TD020080BP201##BH1	R42	200		10.5	
TD020080BP251##BH1		250			
TD020080BP301##BH1		300			
TD020080BP401##BJ1	R85	400			
TD020080BP501##BJ1		500			
TD020080BP601##BJ1		600			
TD020080BP102##BJ1		1000			
TD020080VY122##BJ1		1200	7.0		

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

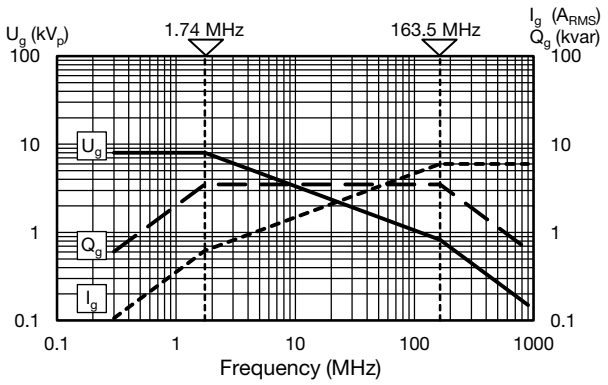
DIMENSIONS in millimeters (inches)



TYPE	TD 020030	TD 020050	TD 020080
Length L	36 (1.42)	56 (2.20)	86 (3.39)

DERATING DIAGRAMS

TD020030BP100##BF1



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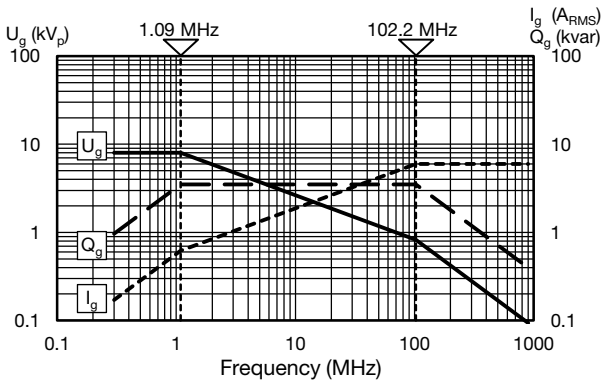

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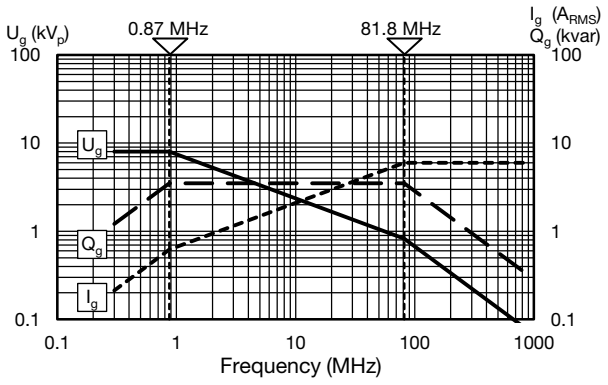

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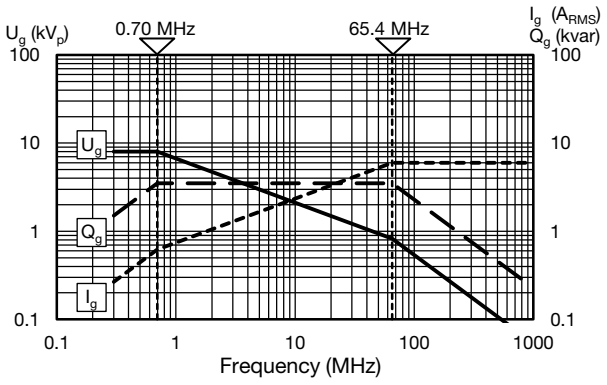

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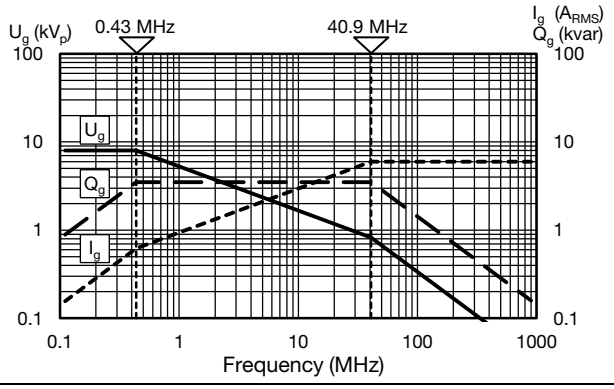

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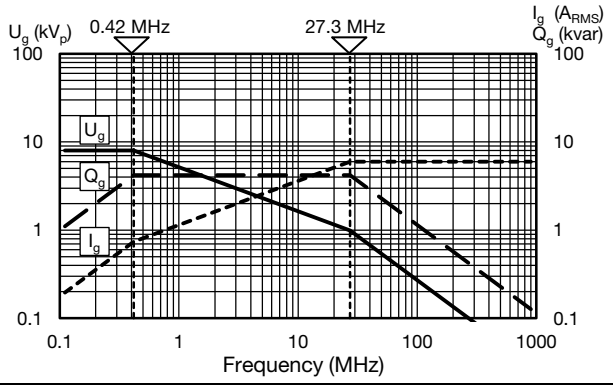

DERATING DIAGRAMS

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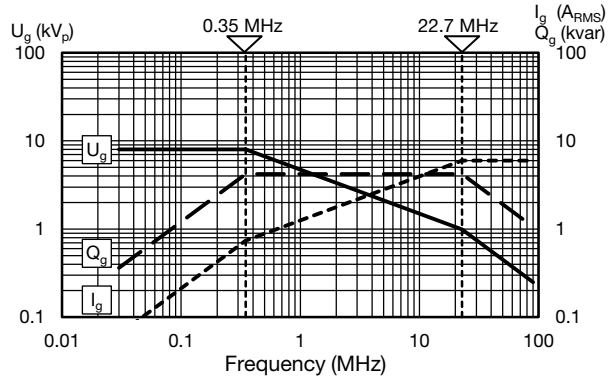

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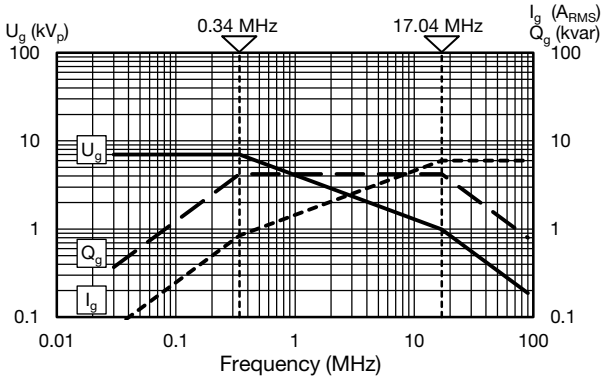

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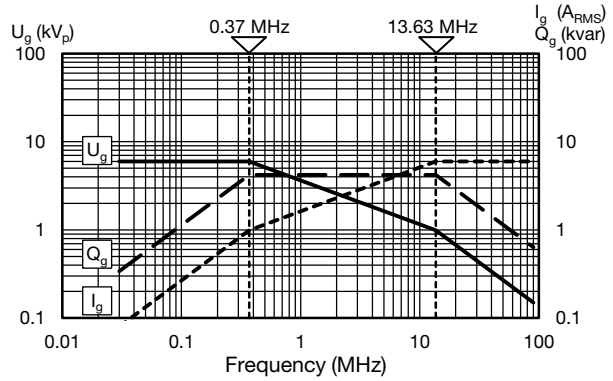

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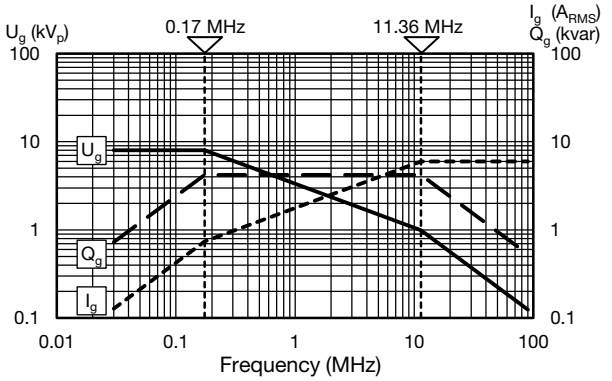

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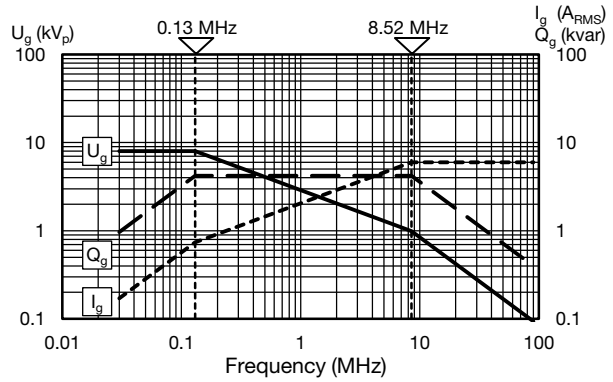

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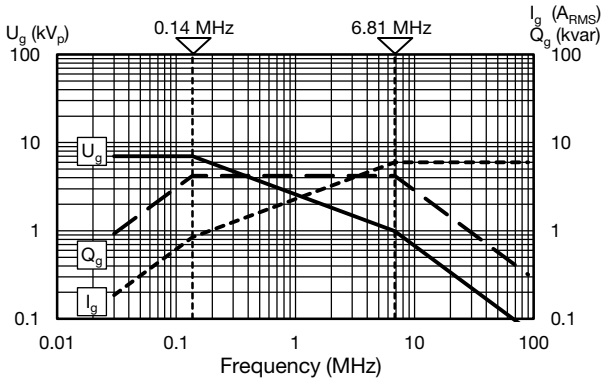

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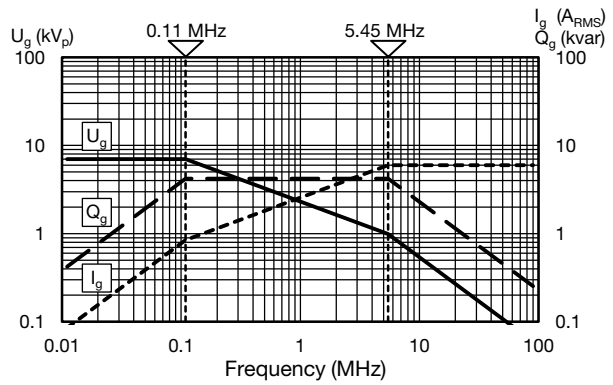

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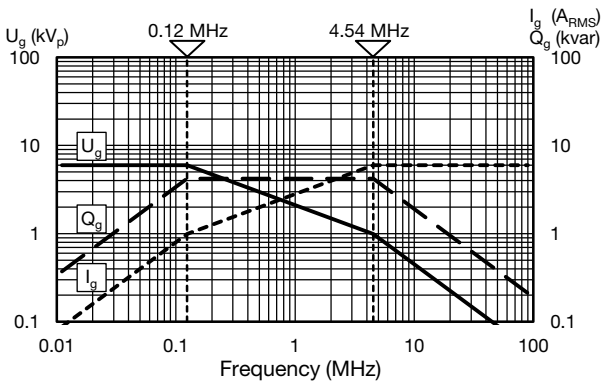

DERATING DIAGRAMS

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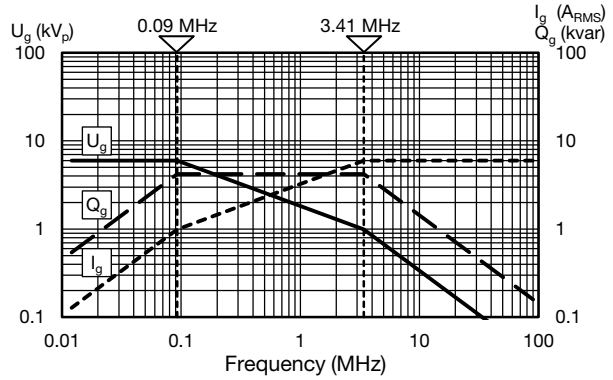

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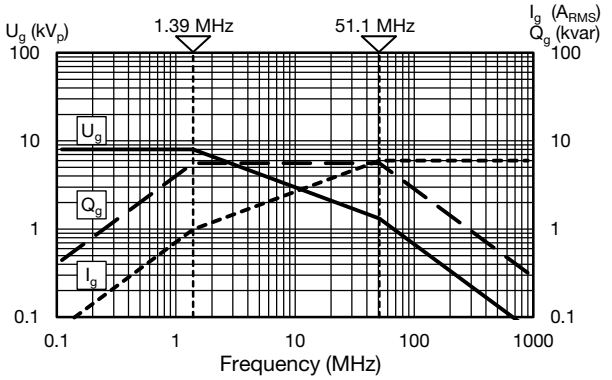

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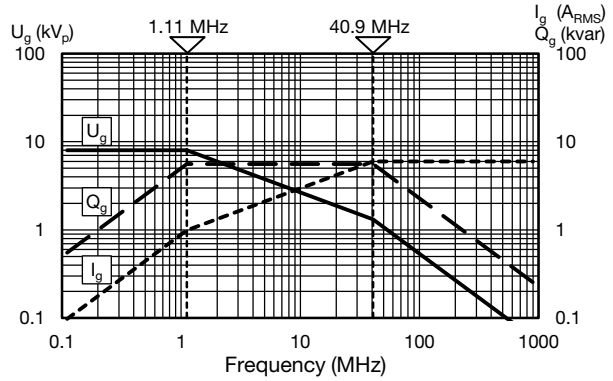

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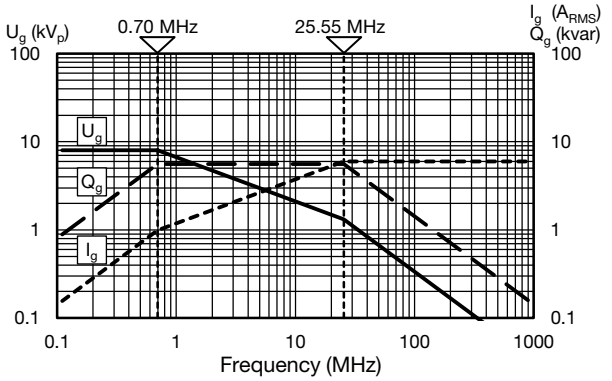

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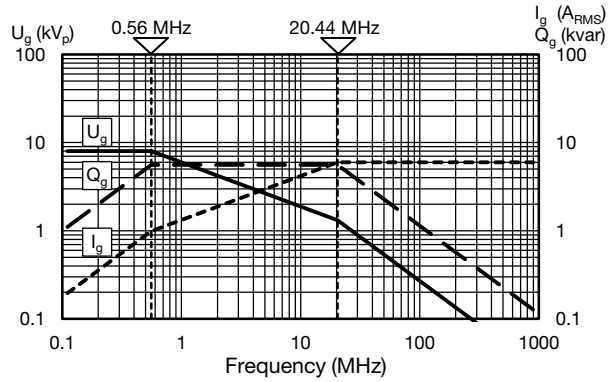

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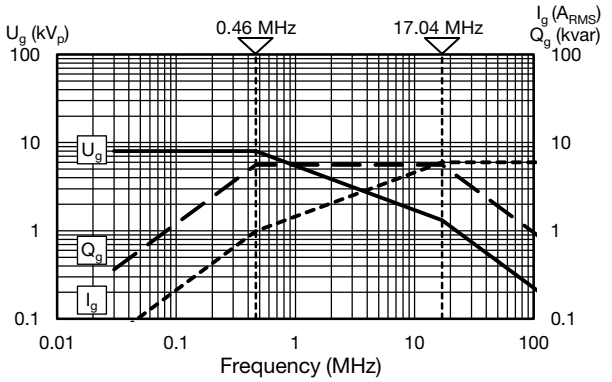

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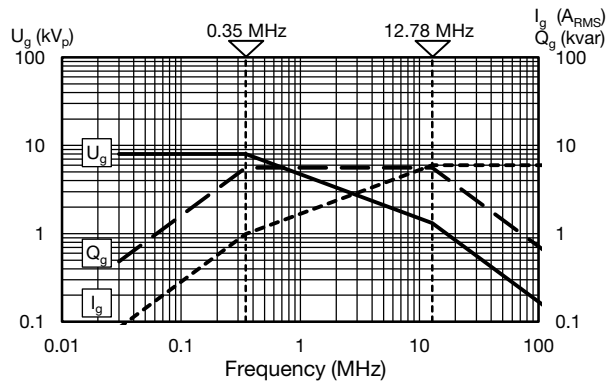

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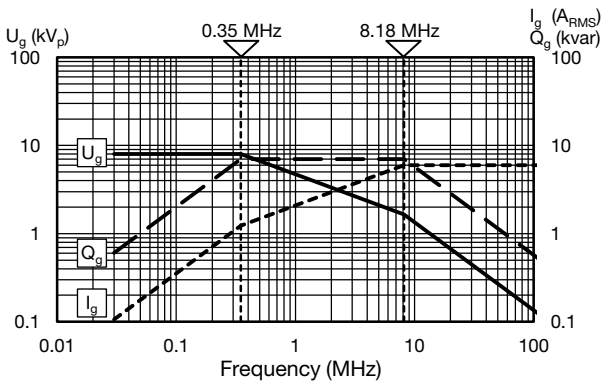

DERATING DIAGRAMS

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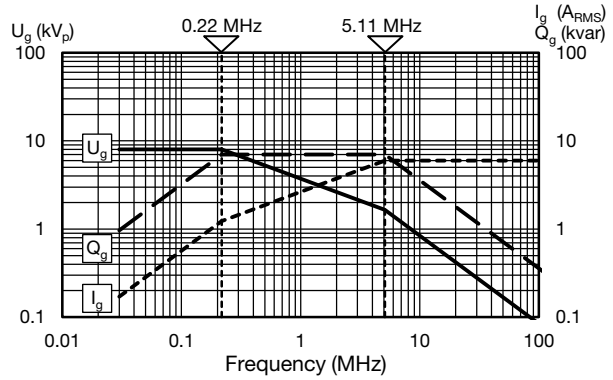

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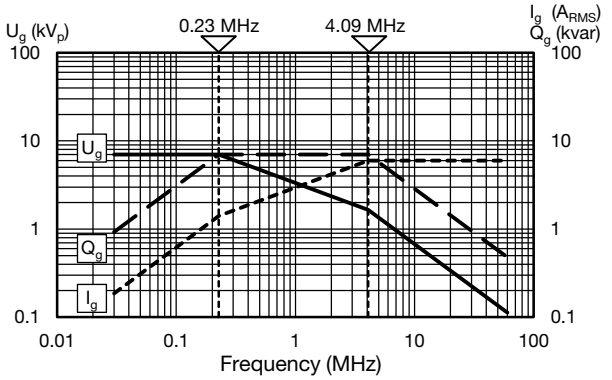

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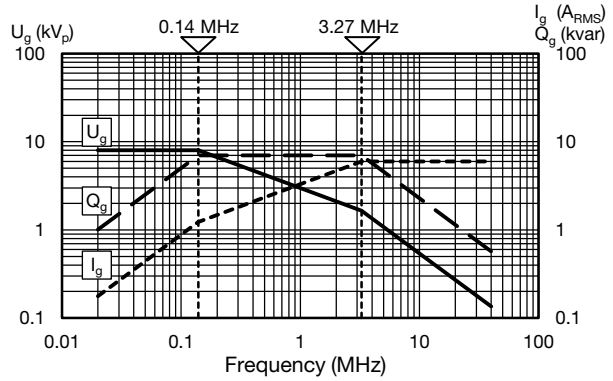

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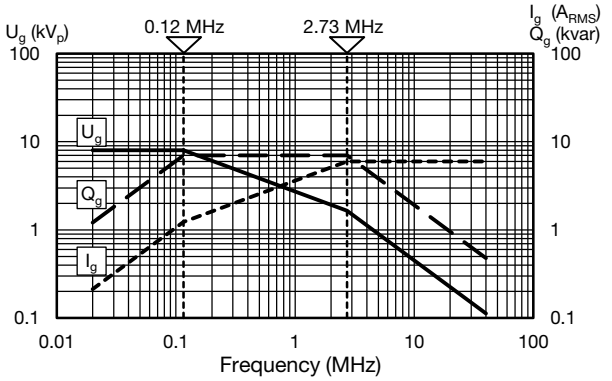

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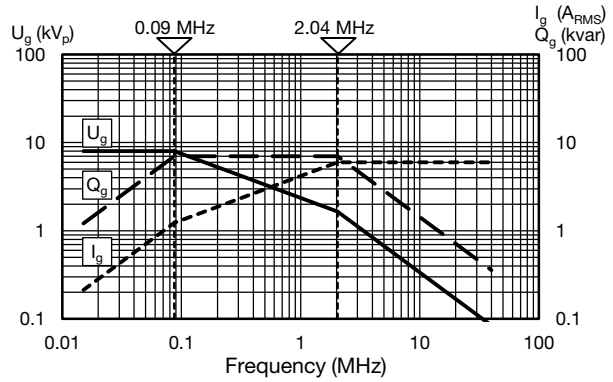

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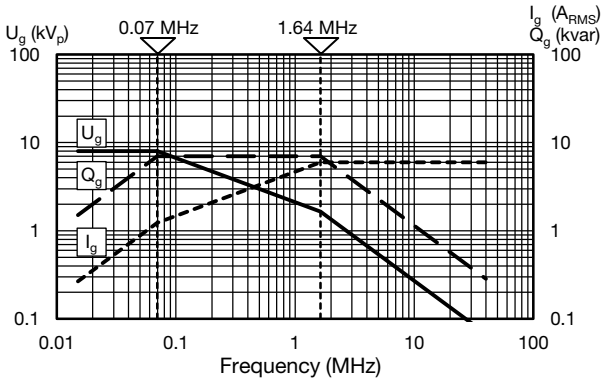

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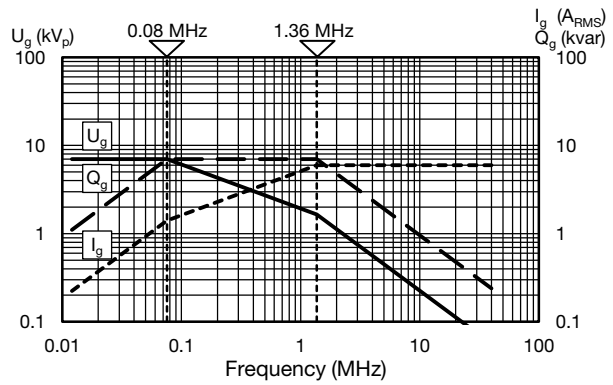

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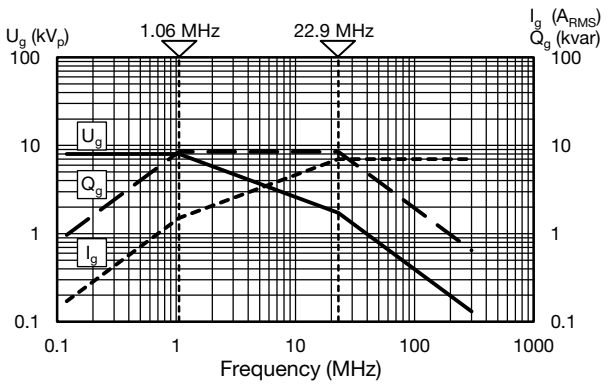

DERATING DIAGRAMS

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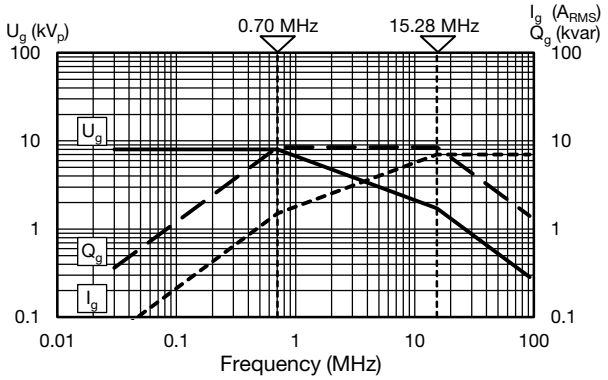

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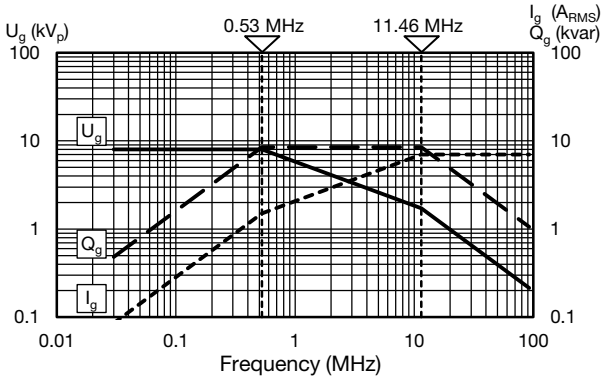

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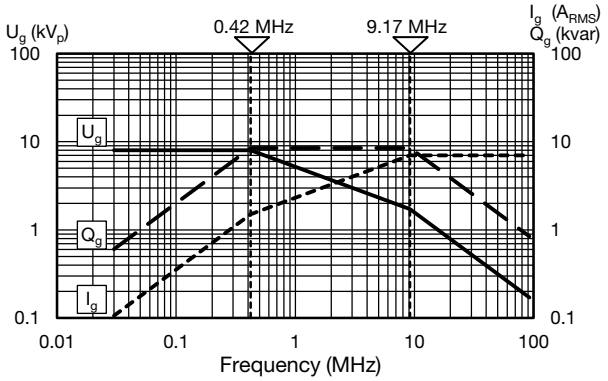

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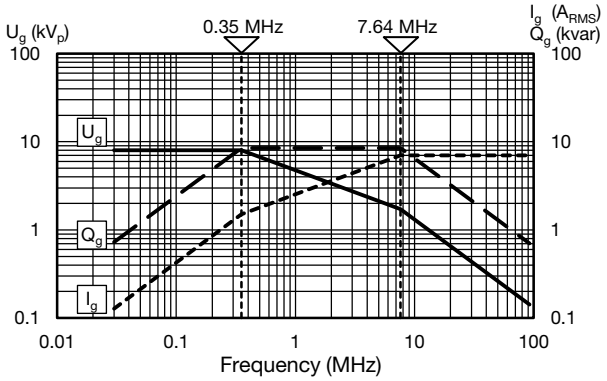

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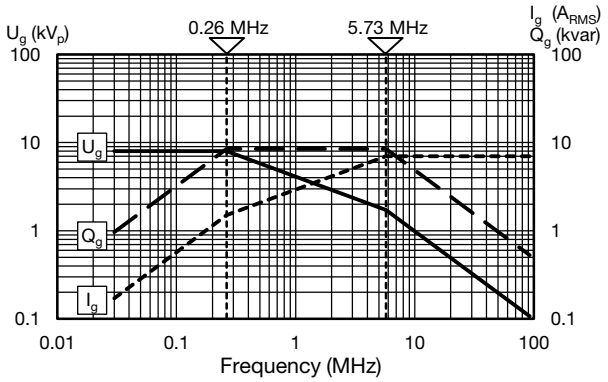

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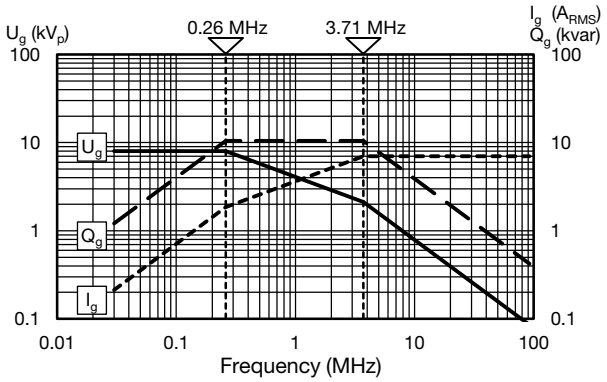

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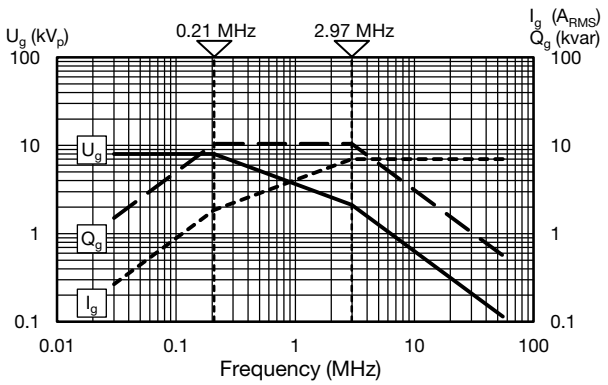

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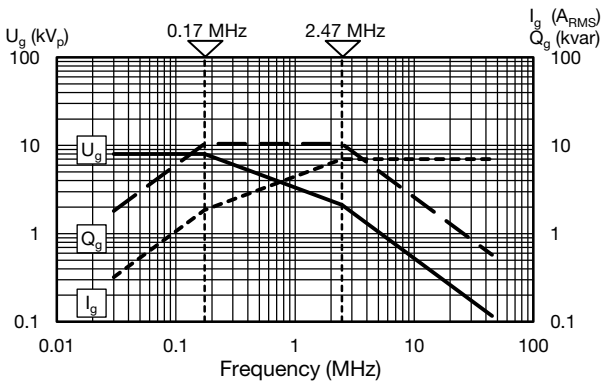

DERATING DIAGRAMS

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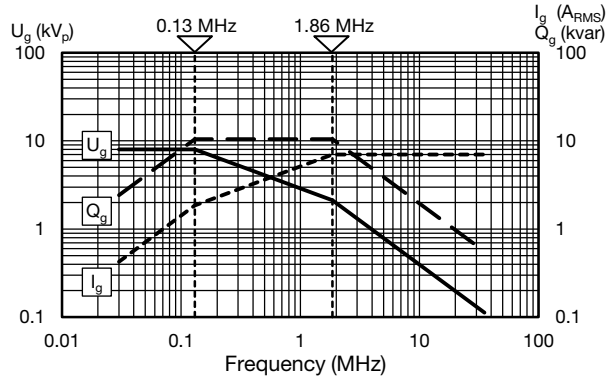

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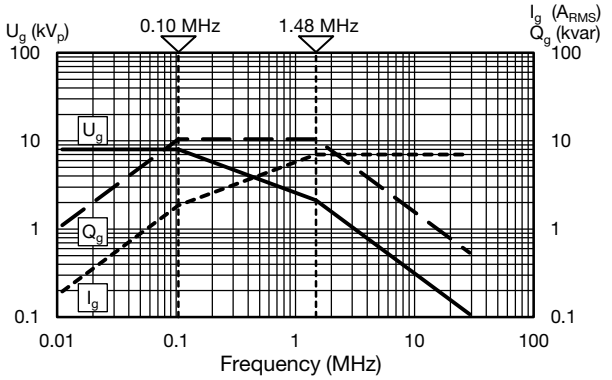

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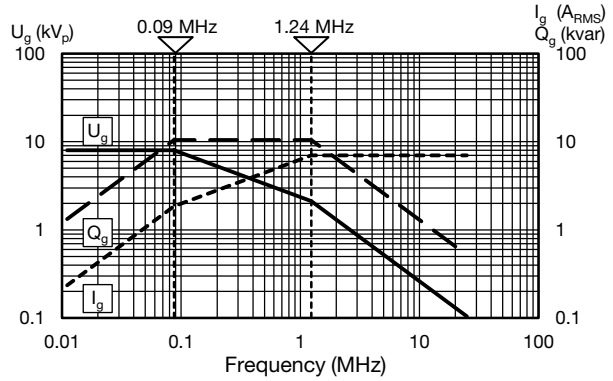

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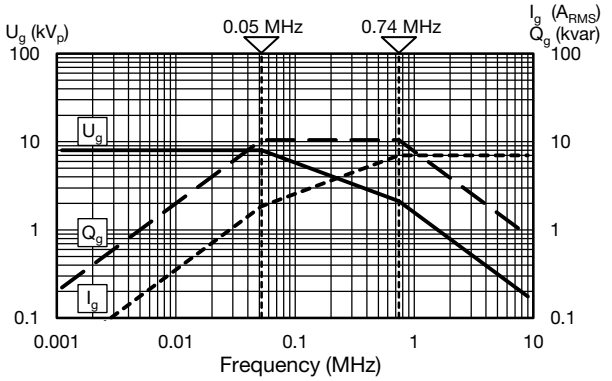

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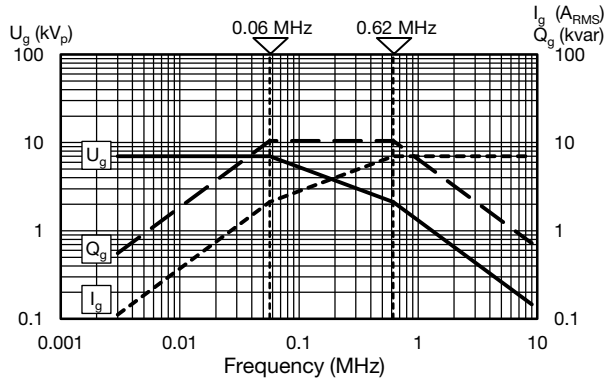

RELATED DOCUMENTS

General Information	www.vishay.com/doc?22071

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