RF Power Plate Capacitors for Higher Voltages Class 1 Ceramic

QUICK REFERENCE DATA	
DESCRIPTION	VALUE
Ceramic Class	1
Ceramic Dielectric	R7, R16, R42, R85, R230
Type	PEF 220
Voltage (V_{pp})	12 000, 13 000, 14 000, 15 000, 16 000, 17 000, 18 000, 20 000
Min. Capacitance (pF)	160
Max. Capacitance (pF)	10 000
Mounting	Screw terminal

MATERIAL

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

Flexible connection terminals copper/brass, silver plated, to allow for series and parallel interconnection

MARKING

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

FINISH

Noble metal electrodes and terminals are protective lacquered.

The PEF 220 type features an insulating rim made from silicone elastomer to minimize the adverse effects of moisture, dustand other impurities in the working environment and to improve the characteristics of the electrical field.

FEATURES

- Low losses
- High reliability
- High voltage ratings

APPLICATIONS

These high technology are designed for usage in high frequency heating and welding equipment were high voltage ratings are required. The insulation rim made from silicone rubber minimize the adverse effects of moisture, dust, and other impurities in the working environment.

CAPACITANCE RANGE

160 pF to 10 nF

CAPACITANCE TOLERANCE

± 20 %, ± 10 %

CERAMIC DIELECTRIC

- 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

- 12 kV_p
- 13 kV_p
- 14 kV_p
- 15 kV_p
- 16 kV_p
- 17 kV_p
- 18 kV_p
- 20 kV_p

DIELECTRIC STRENGTH TEST

200 % of rated voltage, 50 Hz

DISSIPATION FACTOR

R16: Max. 0.04 %

R7, 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. VALUE (pF)	RATED VOLTAGE (kV_p)	RATED POWER [1] (kvar)	RATED CURRENT (A_{RMS})
TYPE PEF 220					
PEF220WP161##BF1	R 7	160	20	30	60
PEF220WP201##BF1		200			
PEF220WL251##BF1		250	16	110	
PEF220WJ301##BF1		300	14		
PEF220WF401##BF1		400	12		
PEF220WN501##BG1	R 16	500	18	140	60
PEF220WL601##BG1		600	16		
PEF220WP801##BH1	R 42	800	20	140	60
PEF220WP102##BH1		1000			
PEF220WL122##BH1		1200	16		
PEF220WJ162##BH1		1600	14		
PEF220WP202##BJ1	R85	2000	20	140	60
PEF220WP252##BJ1		2500			
PEF220WP252##BJ3		2500			100
PEF220WP252##BJ2		2500			125
PEF220WM302##BJ1		3000	17		60
PEF220WH402##BJ1		4000	13		
PEF220WH502##BJ1		5000			
PEF220WF602##BJ1		6000	12		
PEF220WP602##BK1	R 230	6000	20	140	100
PEF220BJ702##BK1		7000	15		
PEF220BJ802##BK1		8000			
PEF220WH103##BK1		10 000	13		

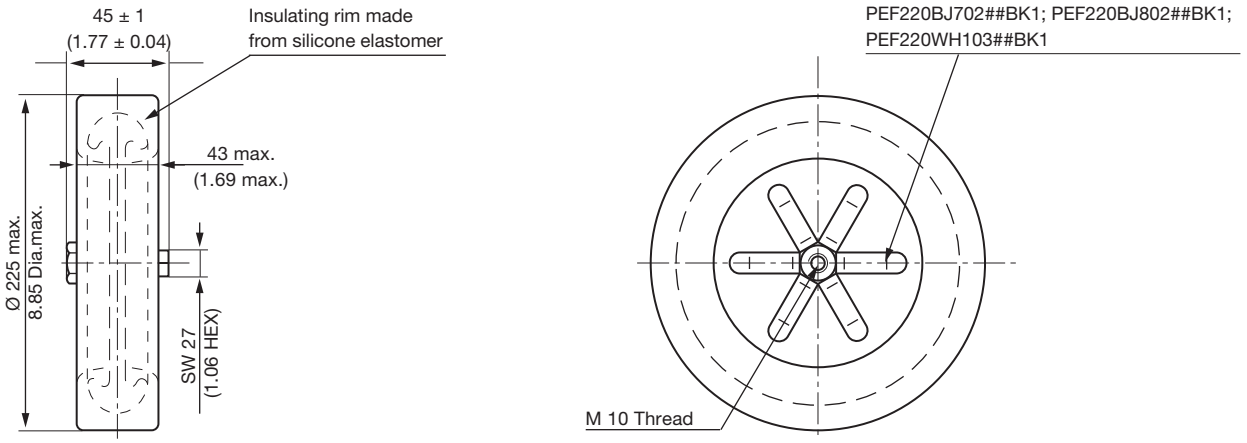
Notes

- ## 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)

PEF 220



DERATING DIAGRAMS

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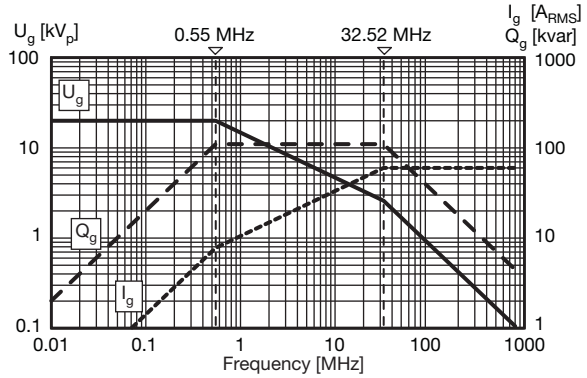

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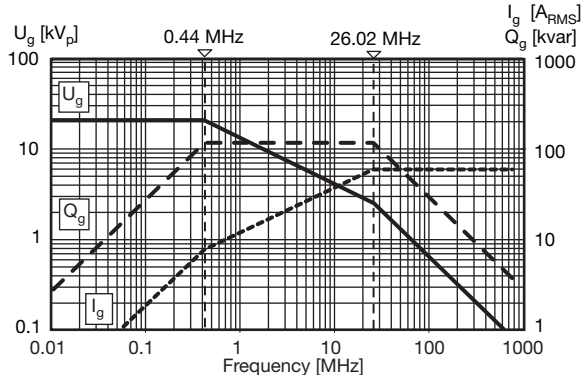

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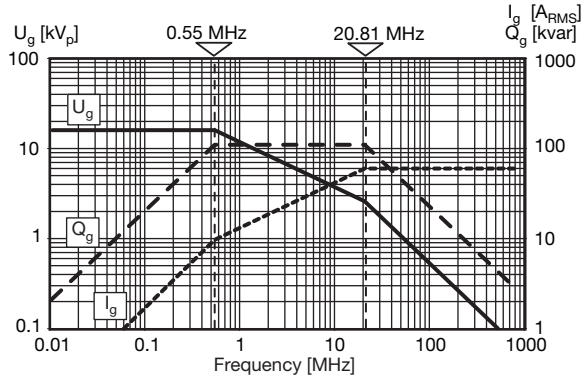

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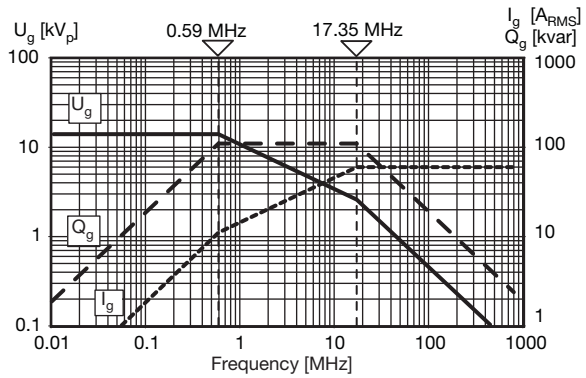

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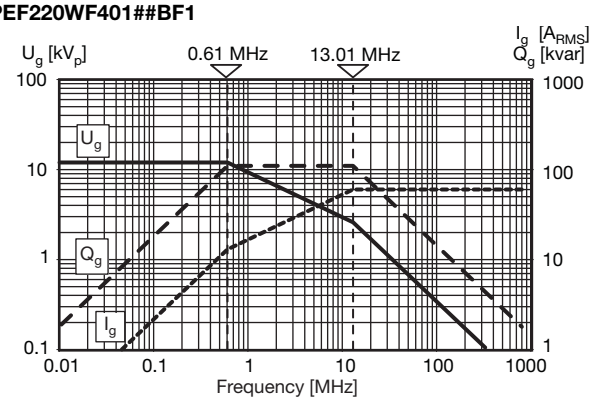

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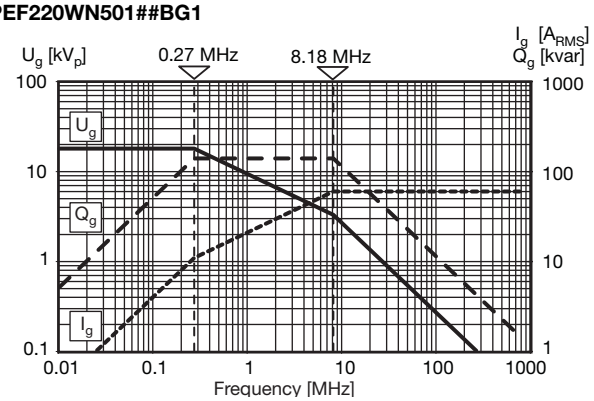

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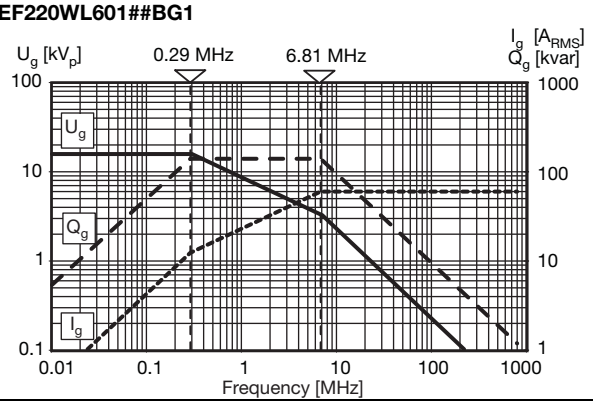

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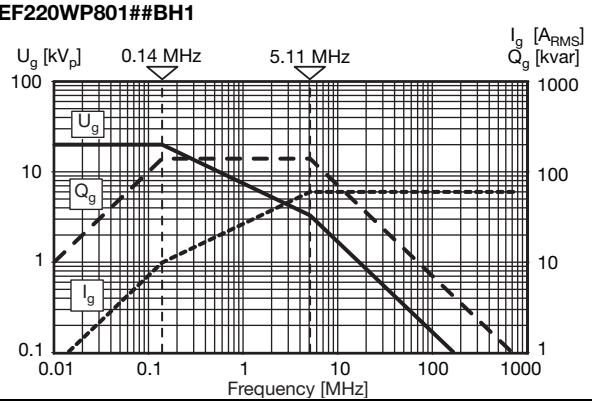

DERATING DIAGRAMS

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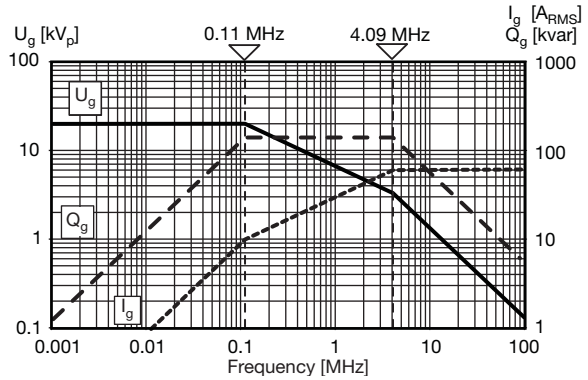

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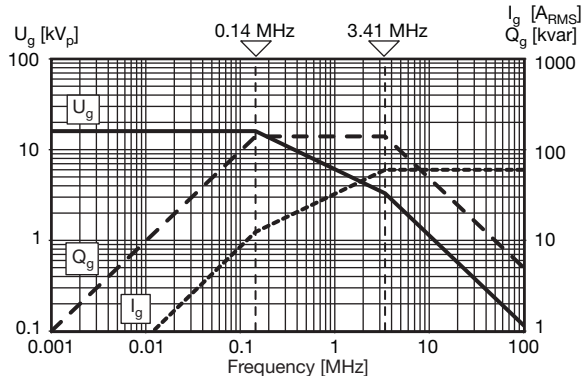

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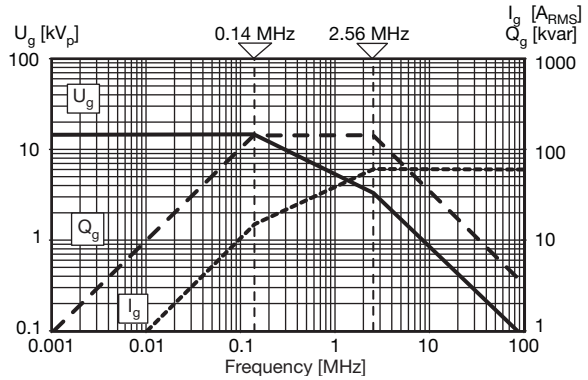

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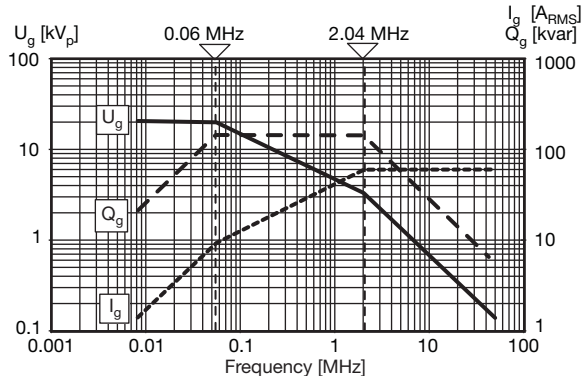

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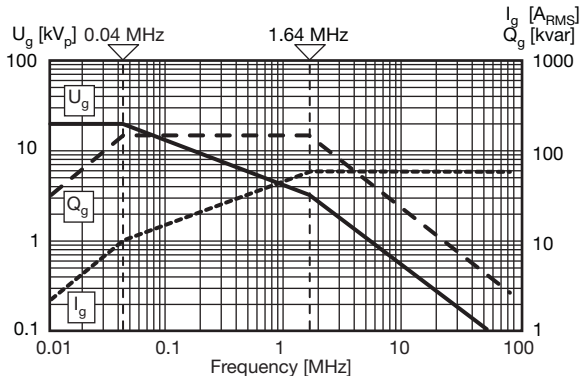

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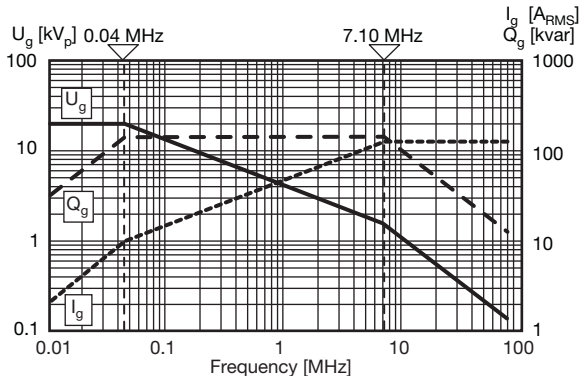

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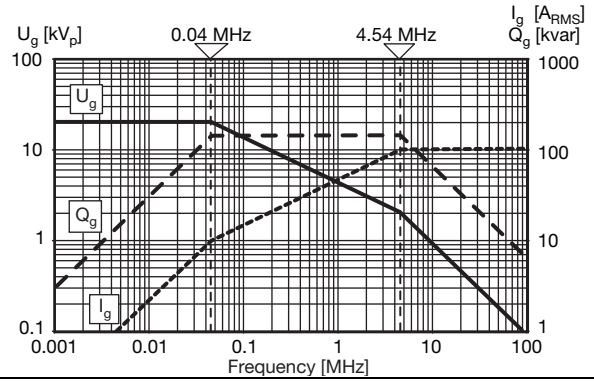

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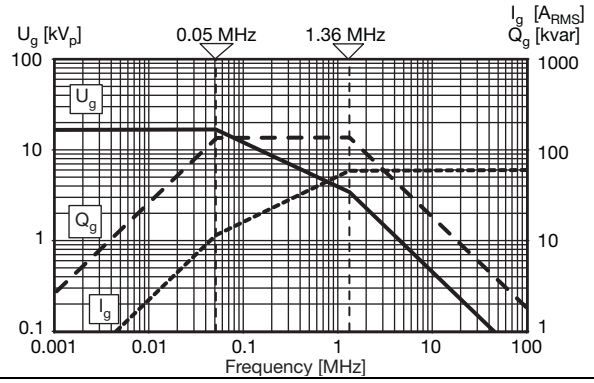

DERATING DIAGRAMS

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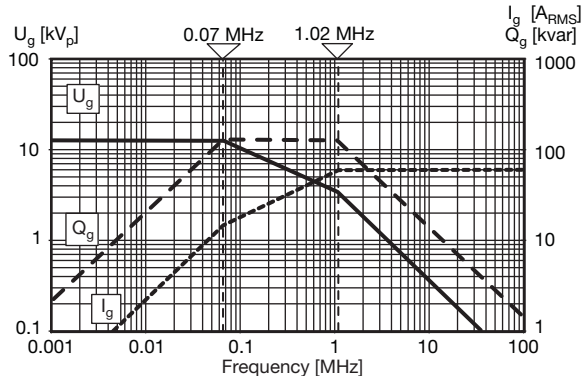

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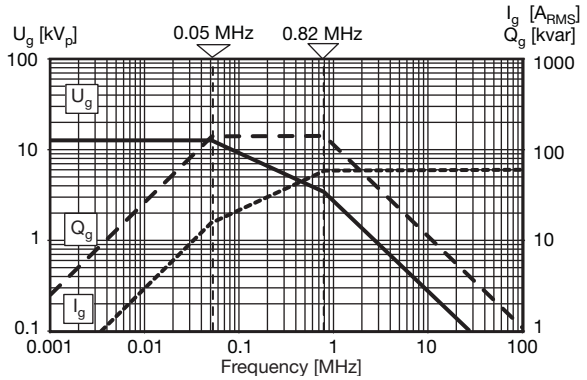

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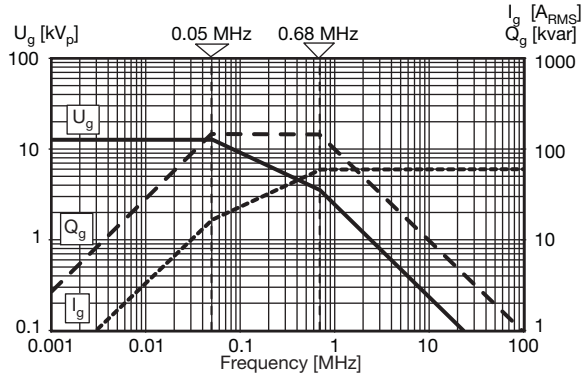

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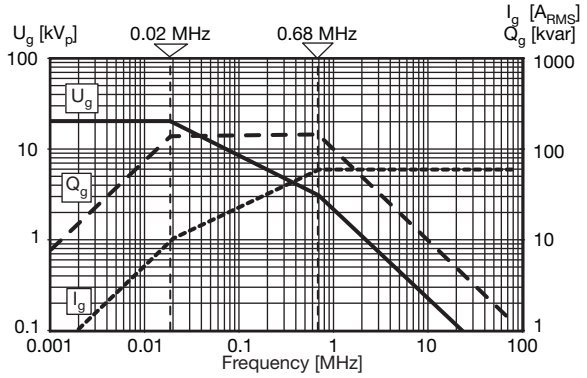

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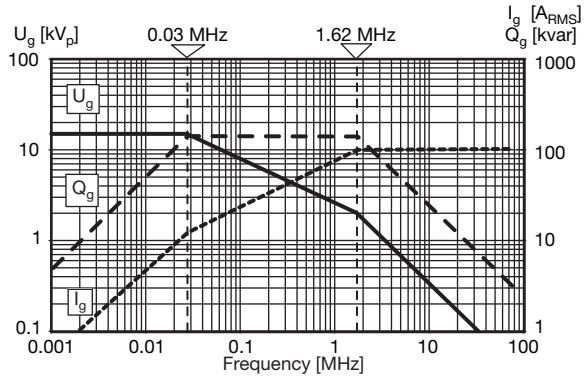

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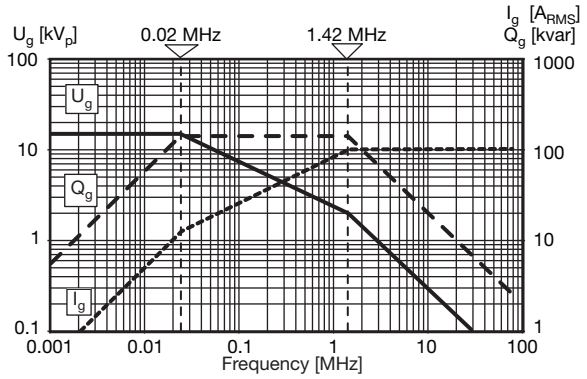

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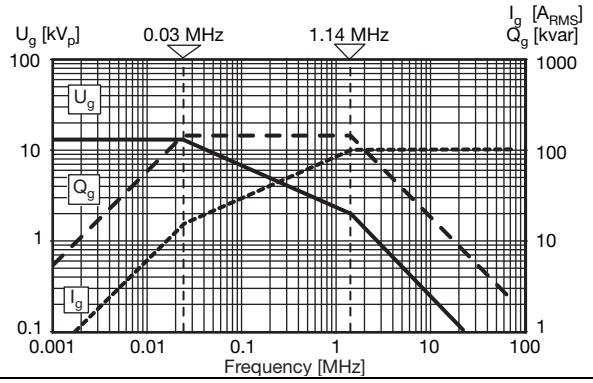

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