

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, dust and 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 where 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

$\pm 20 \%$, $\pm 10 \%$

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 M Ω (at 25 °C)

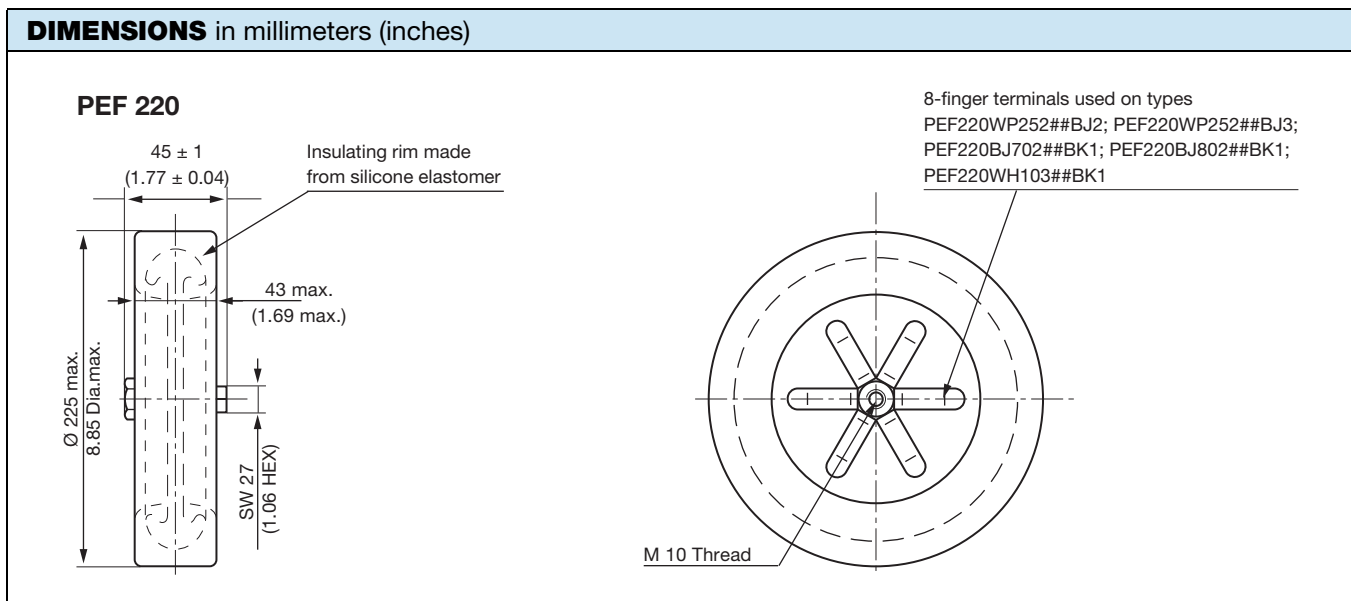
OPERATING TEMPERATURE RANGE

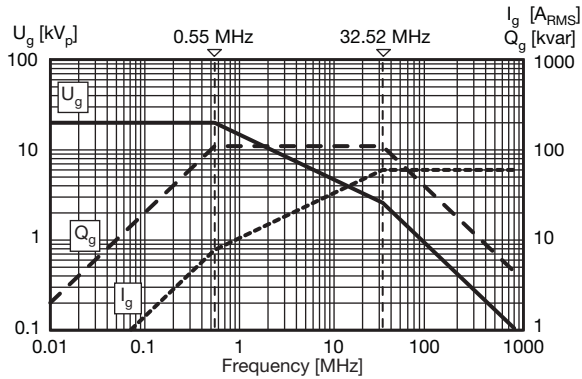
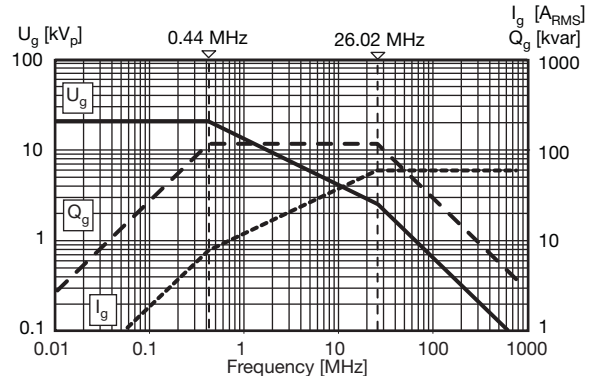
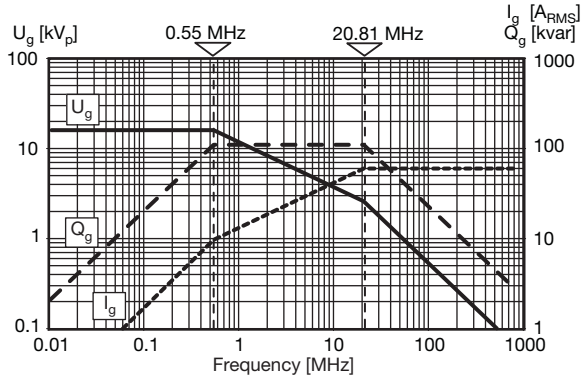
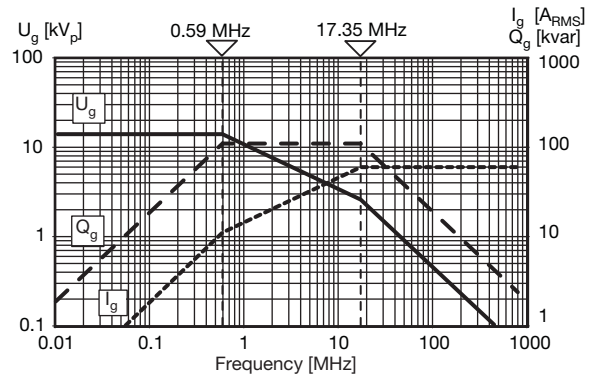
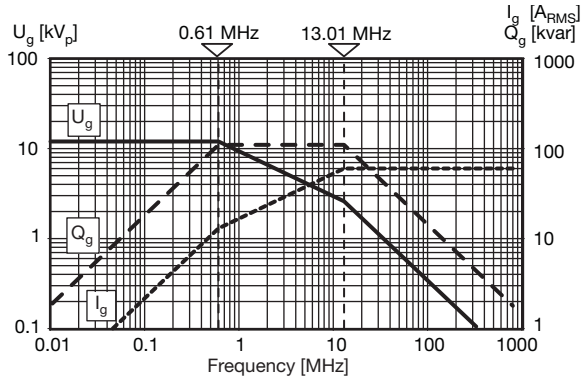
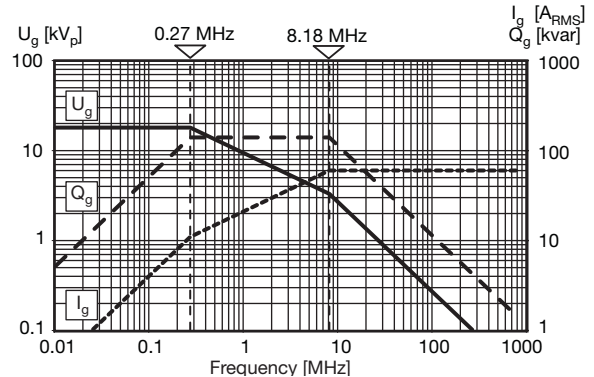
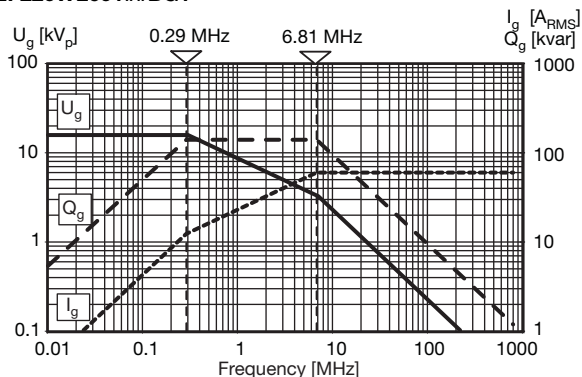
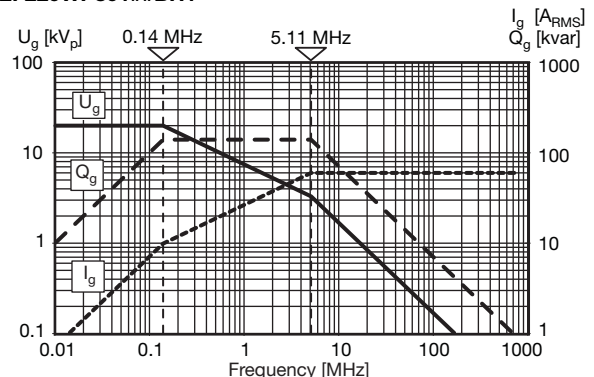
- 55 °C to + 100 °C

| 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 | | | |
| PEF220WF401##BF1 | R 16 | 400 | 12 | 140 | 60 |
| PEF220WN501##BG1 | | 500 | 18 | | |
| PEF220WL601##BG1 | R 42 | 600 | 16 | 140 | 60 |
| PEF220WP801##BH1 | | 800 | 20 | | |
| PEF220WP102##BH1 | | 1000 | | | |
| PEF220WL122##BH1 | | 1200 | 16 | | |
| PEF220WJ162##BH1 | R85 | 1600 | 14 | 140 | 60 |
| PEF220WP202##BJ1 | | 2000 | 20 | | |
| PEF220WP252##BJ1 | | 2500 | | | |
| PEF220WP252##BJ3 | | 2500 | | | |
| PEF220WP252##BJ2 | | 2500 | 17 | | 125 |
| PEF220WM302##BJ1 | | 3000 | | | |
| PEF220WH402##BJ1 | | 4000 | 13 | | 60 |
| PEF220WH502##BJ1 | | 5000 | | | |
| PEF220WF602##BJ1 | 6000 | 12 | 140 | 100 | |
| PEF220WP602##BK1 | R 230 | 6000 | | | 20 |
| PEF220BJ702##BK1 | | 7000 | | | 15 |
| PEF220BJ802##BK1 | | 8000 | | | |
| PEF220WH103##BK1 | | 10 000 | 13 | | |

Notes

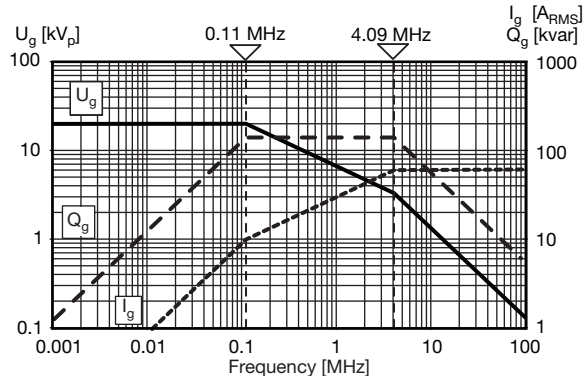
- ## 14th to 15th digit: Capacitance tolerance code ± 20 % = 38, ± 10 % = 36, ± 5 % = 33
- ⁽¹⁾ The surface temperature during operation must not exceed + 100 °C



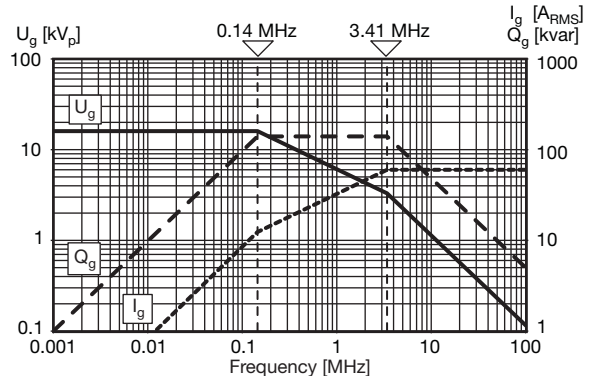
DERATING DIAGRAMS
PEF220WP161##BF1

PEF220WL201##BF1

PEF220WL251##BF1

PEF220WJ301##BF1

PEF220WF401##BF1

PEF220WN501##BG1

PEF220WL601##BG1

PEF220WP801##BH1


DERATING DIAGRAMS

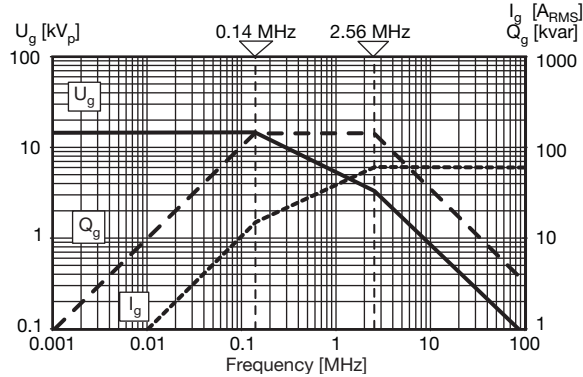
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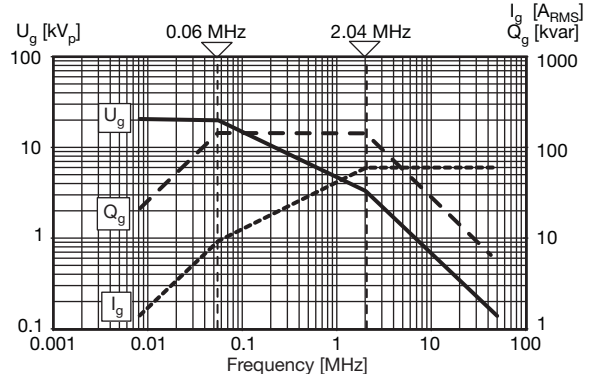
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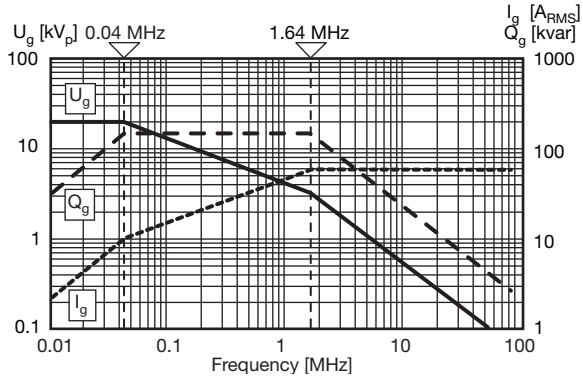
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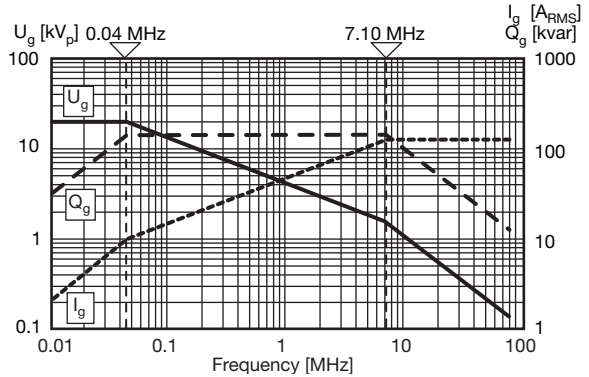
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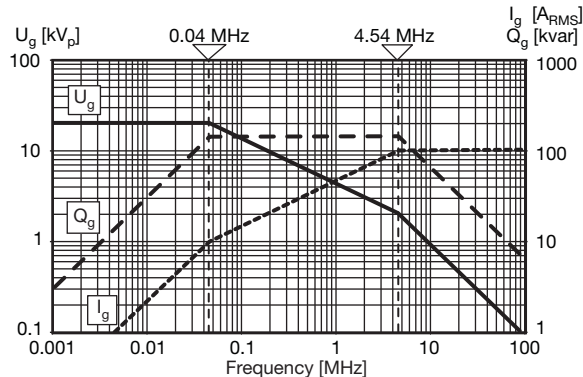
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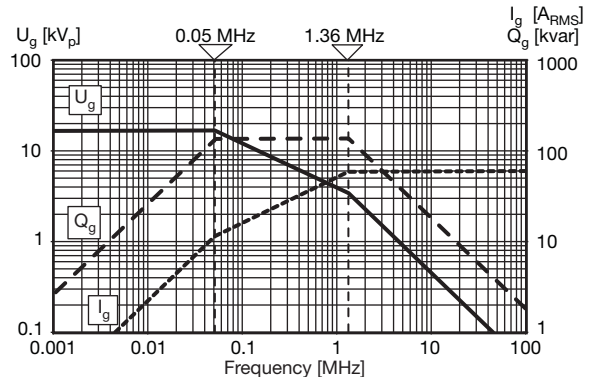
PEF220WP252##BJ2

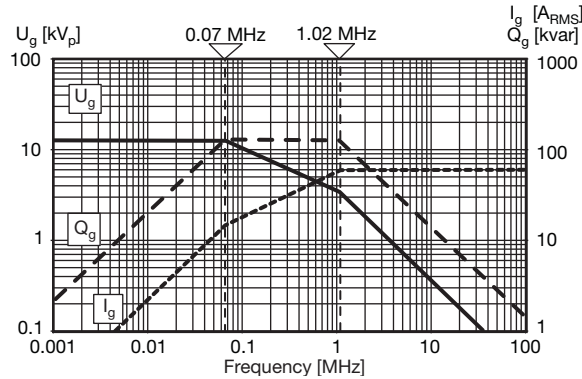
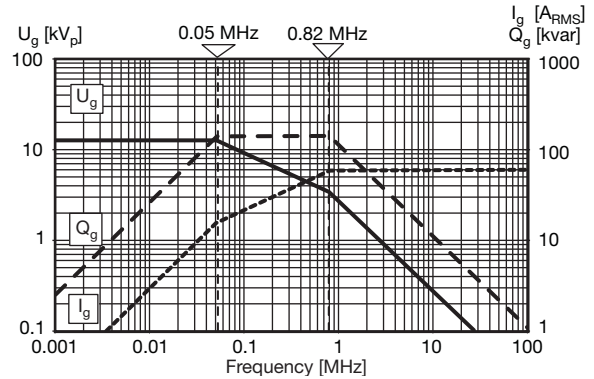
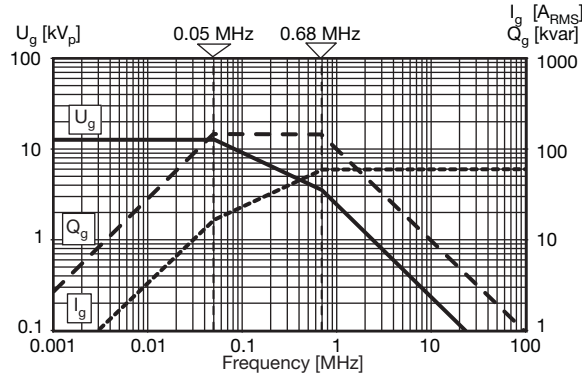
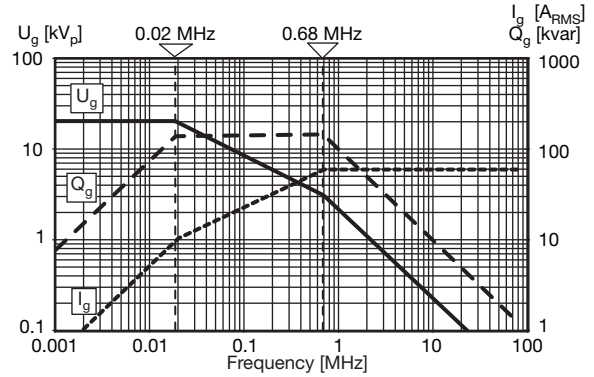
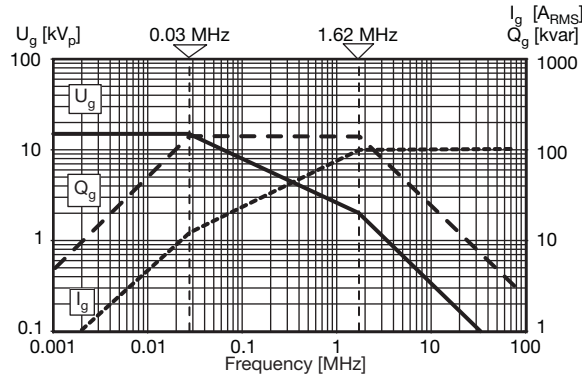
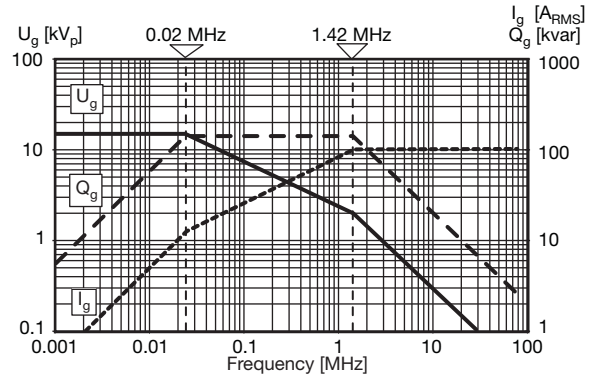
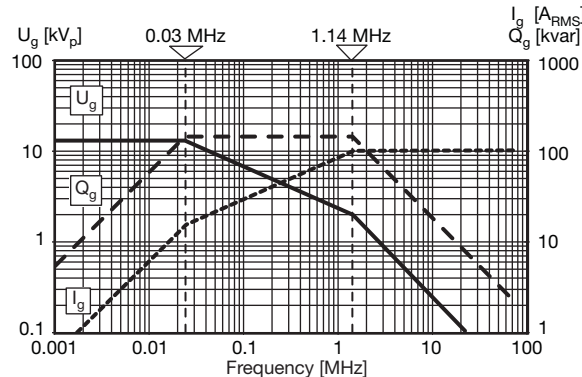


PEF220WP252##BJ3



PEF220WM302##BJ1



DERATING DIAGRAMS
PEF220WH402##BJ1

PEF220WH502##BJ1

PEF220WF602##BJ1

PEF220WP602##BK1

PEF220BJ702##BK1

PEF220BJ802##BK1

PEF220WH103##BK1




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