

## RF Power Pot Capacitors with Mounting Tags, Class 1 Ceramic



### FEATURES

- High reliability
- Multiple terminals
- High capacitance values

### APPLICATIONS

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

| QUICK REFERENCE DATA  |                      |      |        |        |                      |      |        |        |
|-----------------------|----------------------|------|--------|--------|----------------------|------|--------|--------|
| DESCRIPTION           | VALUE                |      |        |        |                      |      |        |        |
| Ceramic Class         | 1                    |      |        |        |                      |      |        |        |
| Ceramic Dielectric    | R85                  |      |        |        |                      |      |        |        |
| Type                  | TB 050120, TE 050120 |      |        |        | TB 050200, TE 050200 |      |        |        |
| Voltage ( $V_p$ )     | 6000                 | 9000 | 10 000 | 12 000 | 6000                 | 9000 | 10 000 | 12 000 |
| Min. Capacitance (pF) | 3000                 | 2500 | 1600   | 1000   | 6000                 | 5000 | 3000   | 2000   |
| Max. Capacitance (pF) | 4000                 | 2500 | 2000   | 1200   | 6000                 | 5000 | 4000   | 2500   |
| 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

1.0 nF to 6.0 nF

### CAPACITANCE TOLERANCE

± 20 %; ± 10 %; ± 5 %

### CERAMIC DIELECTRICS

R85 (TCC - 750 ppm/K)

### RATED VOLTAGE

- 6.0 kV<sub>p</sub>
- 9.0 kV<sub>p</sub>
- 10.0 kV<sub>p</sub>
- 12.0 kV<sub>p</sub>

### DIELECTRIC STRENGTH TEST

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

### DISSIPATION FACTOR

Max. 0.05 % (300 kHz or 100 kHz)

### 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 T. 050120</b>               |         |                  |                                  |                                   |                                   |
| T#050120WF102##BJ1                  | R85     | 1000             | 12                               | 60                                | 20                                |
| T#050120WF122##BJ1                  |         | 1200             |                                  |                                   |                                   |
| T#050120BH162##BJ1                  |         | 1600             | 10                               |                                   |                                   |
| T#050120BH202##BJ1                  |         | 2000             |                                  |                                   |                                   |
| T#050120WC252##BJ1                  |         | 2500             | 9.0                              |                                   |                                   |
| T#050120BF302##BJ1                  |         | 3000             | 6.0                              |                                   |                                   |
| T#050120BF402##BJ1                  |         | 4000             |                                  |                                   |                                   |
| <b>TYPE T. 050200</b>               |         |                  |                                  |                                   |                                   |
| T#050200WF202##BJ1                  | R85     | 2000             | 12                               | 70                                | 20                                |
| T#050200WF252##BJ1                  |         | 2500             |                                  |                                   |                                   |
| T#050200BH302##BJ1                  |         | 3000             | 10                               |                                   |                                   |
| T#050200BH402##BJ1                  |         | 4000             |                                  |                                   |                                   |
| T#050200WC502##BJ1                  |         | 5000             | 9.0                              |                                   |                                   |
| T#050200BF602##BJ1                  |         | 6000             | 6.0                              |                                   |                                   |

**Notes**

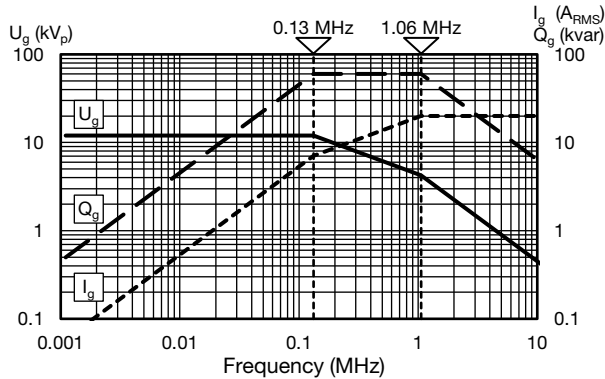
- # 2<sup>nd</sup> digit: code letter of the terminal version B, E
- ## 14<sup>th</sup> to 15<sup>th</sup> digit: capacitance tolerance code  $\pm 20\% = 38, \pm 10\% = 36, \pm 5\% = 33$
- <sup>(1)</sup> The surface temperature during operation must not exceed +100 °C

| DIMENSIONS in millimeters (inches) |                       |                       |
|------------------------------------|-----------------------|-----------------------|
| <b>TB</b>                          |                       |                       |
| <b>TE</b>                          |                       |                       |
| <b>TYPE</b>                        | <b>T. 050120</b>      | <b>T. 050200</b>      |
| Length L <sub>1</sub>              | 120 (4.72)            | 200 (7.87)            |
| Length L <sub>2</sub>              | 60 ± 2 (2.36 ± 0.08)  | 100 ± 2 (3.94 ± 0.08) |
| Length L <sub>3</sub>              | 125 ± 2 (4.92 ± 0.08) | 205 ± 2 (8.07 ± 0.08) |

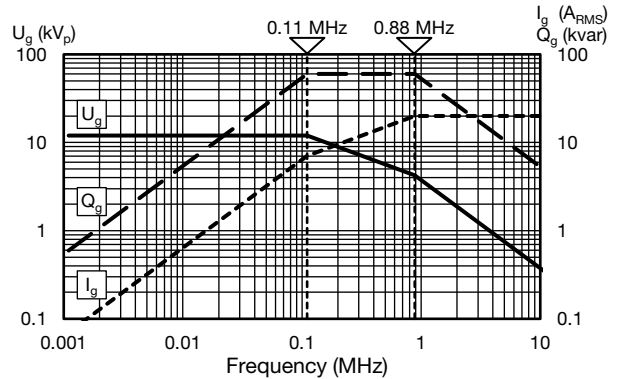


DERATING DIAGRAMS

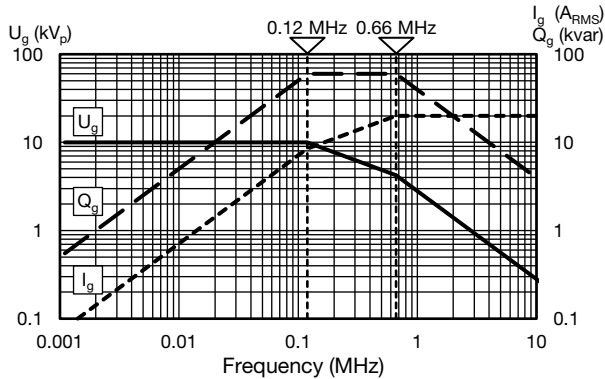
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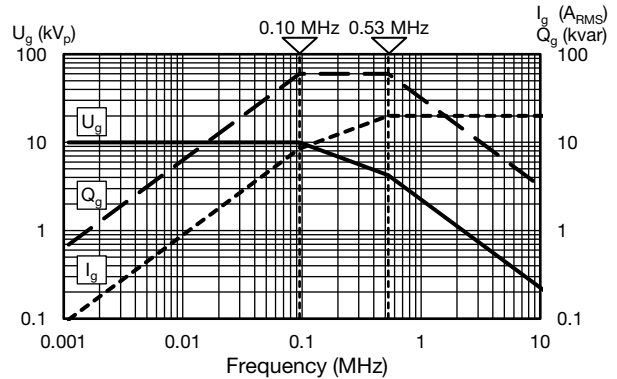
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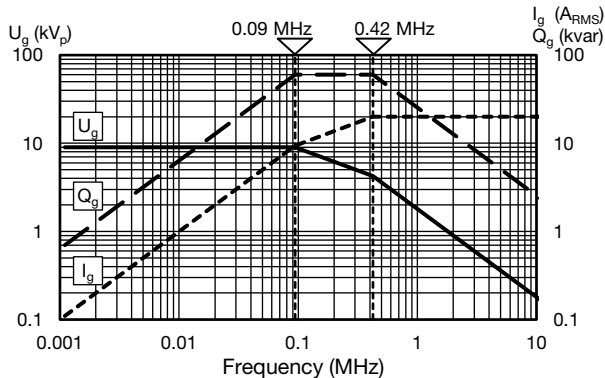
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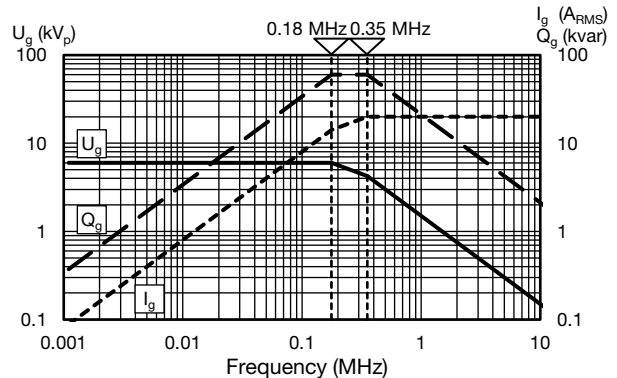
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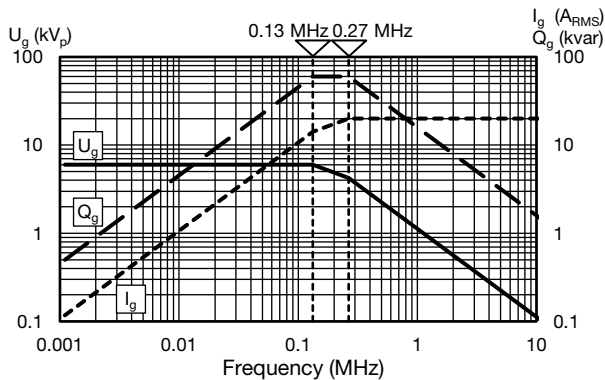
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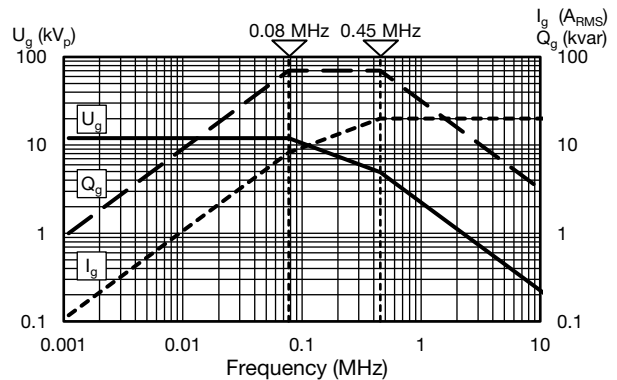
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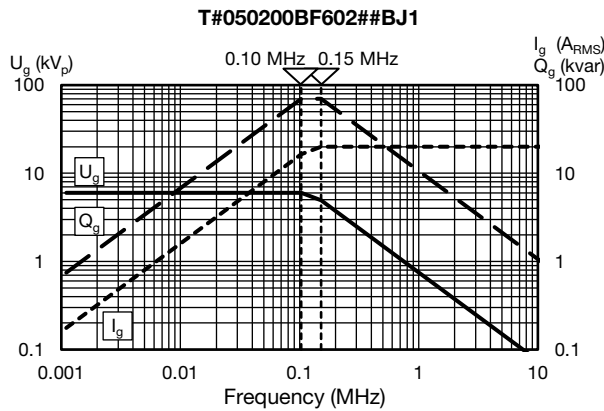
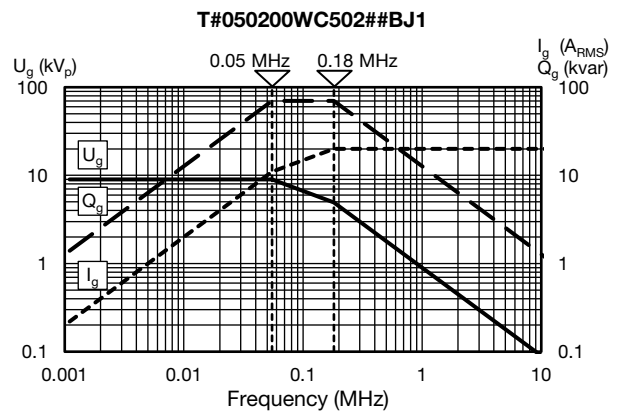
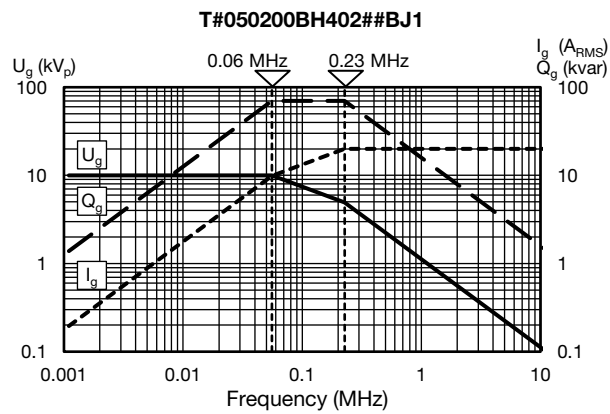
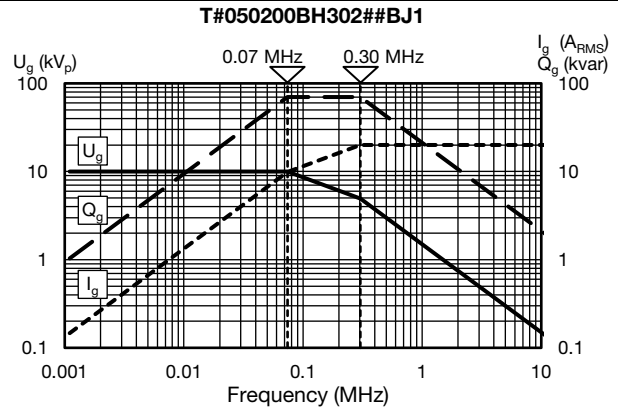
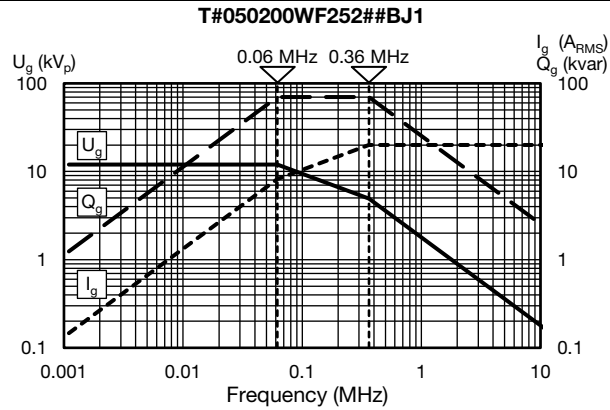
T#050120BF402##BJ1



T#050200WF202##BJ1



**DERATING DIAGRAMS**



**RELATED DOCUMENTS**

General Information

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



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