

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



QUICK REFERENCE DATA					
DESCRIPTION	VALUE				
Ceramic Class	1				
Ceramic Dielectric	R7, R16, R42, R85				
Туре	TA 030090 TB 030090 TC 030090 TD 030090 TDZ 030090 TE 030090				
Voltage (V <sub>p</sub> )	9000	10 000			
Min. Capacitance (pF)	1200	50			
Max. Capacitance (pF)	1600	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 laquered
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

#### **FEATURES**

- High reliability
- Multiple terminals
- Wide range of capacitance values

#### **APPLICATIONS**

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

#### **CAPACITANCE RANGE**

50 pF to 1.6 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)

#### **RATED VOLTAGE**

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

#### **DIELECTRIC STRENGTH TEST**

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

#### **DISSIPATION FACTOR**

R7: Max. 0.07 % (1 MHz) R16: Max. 0.04 % (1 MHz) R42, R85: Max. 0.05 % (1 MHz)

#### **INSULATION RESISTANCE**

Min. 100 000 M $\Omega$  (at 25 °C)

#### **OPERATING TEMPERATURE RANGE**

- 55 °C to + 100 °C

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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> )	
T. 030090						
T#030090BH500##BF1		50				
T#030090BH600##BF1	R7	60	10	14	9.0	
T#030090BH800##BF1		80				
T#030090BH101##BG1	R16	100				
T#030090BH121##BG1		120				
T#030090BH161##BG1		160				
T#030090BH201##BH1	R42	200		18		
T#030090BH251##BH1		250				
T#030090BH301##BH1		300				
T#030090BH401##BH1		400				
T#030090BH501##BJ1	R85	500				
T#030090BH601##BJ1		600				
T#030090BH801##BJ1		800				
T#030090BH102##BJ1		1000				
T#030090WC122##BJ1		1200	9.0			
T#030090WC162##BJ1		1600				

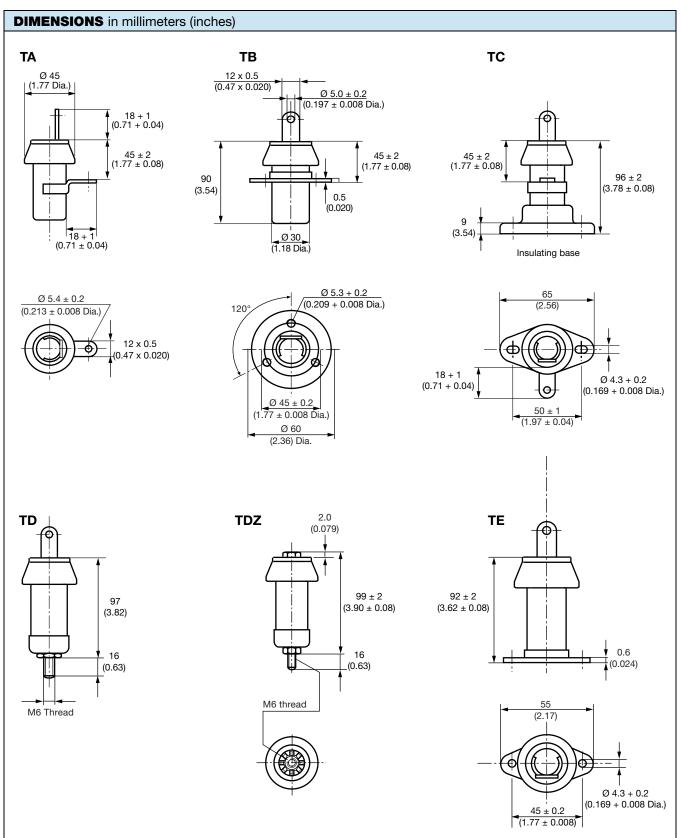
#### Notes

- # 2<sup>nd</sup> digit: Code letter of the terminal version A, B, C, D, E (Exception: TDZ30090)
- ## 14<sup>th</sup> to 15<sup>th</sup> digit: Capacitance tolerance code  $\pm$  20 % = 38,  $\pm$  10 % = 36,  $\pm$  5 % = 33
- (1) The surface temperature during operation must not exceed + 100 °C



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0.1

0.1

0.1

0.1

1000

1000

## 

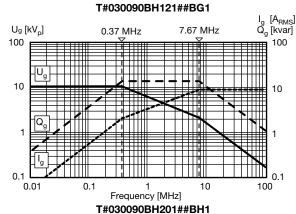
10

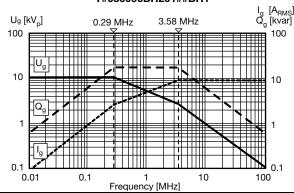
Frequency [MHz]

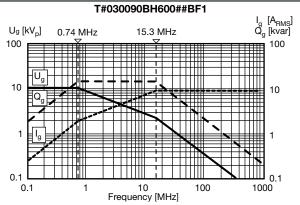
100

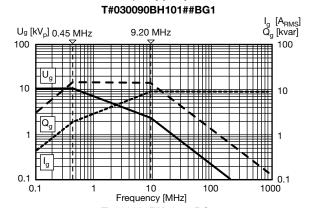
10

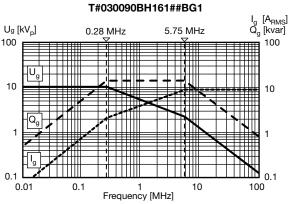
Frequency [MHz]

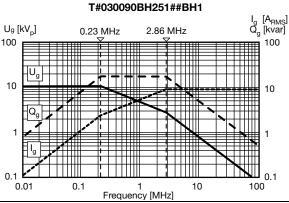












0.1

10





0.001

0.01

0.1

Frequency [MHz]

**DERATING DIAGRAMS** T#030090BH301##BH1 T#030090BH401##BH1  $I_g^{}$  [A<sub>RMS</sub>] Q<sub>g</sub> [kvar]  $I_g^{}$  [A<sub>RMS</sub>]  $Q_g^{}$  [kvar] Ug [kV<sub>p</sub>]  $U_g [kV_p]$ 0.19 MHz 2.39 MHz 0.14 MHz 1.79 MHz 100 100 100 100 10 10 0.1 0.1 0.01 0.1 100 0.01 0.1 100 Frequency [MHz] Frequency [MHz] T#030090BH501##BJ1 T#030090BH601##BJ1  $I_g [A_{RMS}]$  $Q_q [kvar]$  $I_g$  [A<sub>RMS</sub>]  $Q_g$  [kvar] Ug [kV<sub>p</sub>]  $U_g [kV_p]$ 0.10 MHz 0.11 MHz 1.43 MHz 1.19 MHz 100 100 100 100 10 10 10 10 0.1 0.1 0.1 0.1 0.01 0.1 100 0.01 0.1 10 100 Frequency [MHz] Frequency [MHz] T#030090BH801##BJ1 T#030090BH102##BJ1  $\begin{array}{l} I_g \ [A_{RMS}] \\ Q_g \ [kvar] \end{array}$  $I_g [A_{RMS}]$  $Q_g [kvar]$  $U_g [kV_p]$  $U_g [kV_p]$ 0.07 MHz 0.89 MHz 0.06 MHz 0.72 MHz 100 100 100 100 10 10 10 10 0.1 0.1 0.1 0.1 100 0.1 Frequency [MHz] 10 0.01 0.1 1 Frequency [MHz] 0.001 T#030090WC122##BJ1 T#030090WC162##BJ1  $I_g$  [A<sub>RMS</sub>]  $Q_g$  [kvar]  $I_g [A_{RMS}]$   $Q_g [kvar]$ Ug [kV<sub>n</sub>] Ug [kV<sub>n</sub>] 0.06 MHz 0.60 MHz 0.04 MHz 0.45 MHz 100 100 100 100 10 10 10 10

0.1

0.001

0.01

0.1

Frequency [MHz]

0.1

10



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