

RF Power Barrel Capacitors, Class 1 Ceramic



QUICK REFERENCE DATA		
DESCRIPTION	VALUE	
Ceramic Class	1	
Ceramic Dielectric	R7, R16, R42, R85	
Type	TOF 016010 TOS 016010	TOF 025016 TOS 025016
Voltage (V _p)	5000	9000
Min. Capacitance (pF)	1.5	2.0
Max. Capacitance (pF)	50	100
Mounting	Tag mounting or screw mounting	

MATERIAL

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

Connection terminals:

- Axial copper tags, silver plated (Style TOF...)
- Thread terminal, brass, silver plated (Style TOS...)

Allowable torque: M5 thread 3.5 Nm (31 lbf in)
M6 thread 5.0 Nm (44 lbf in)

FINISH

Capacitor body completely protective lacquered

MARKING

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

FEATURES

- Small size
- Geometry minimizes inductance, optimizes voltage withstand and maximizes heat radiation
- Available with thread terminals or axial mounting tags

APPLICATIONS

- Industrial and medical RF power supply
- Small broadcasting equipment
- Antenna couplers
- Induction heating equipment

CAPACITANCE RANGE

1.5 pF to 100 pF

CAPACITANCE TOLERANCE

< 10 pF: ± 2 pF; ± 1 pF; ± 0.5 pF
≥ 10 pF: ± 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

- 5.0 kV_p
- 9.0 kV_p

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 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 TOS 016010							
BS016010BE915##BF1	R7	1.5	5.0	3.0	3.0		
BS016010BE920##BF1		2.0					
BS016010BE930##BF1		3.0					
BS016010BE940##BF1		4.0					
BS016010BE950##BG1	R16	5.0					
BS016010BE960##BG1		6.0					
BS016010BE970##BH1	R42	7.0				4.0	4.0
BS016010BE980##BH1		8.0					
BS016010BE100##BH1		10					
BS016010BE120##BH1		12					
BS016010BE160##BH1		16					
BS016010BE200##BJ1	R85	20		4.0	5.0		
BS016010BE250##BJ1		25					
BS016010BE300##BJ1		30					
BS016010BE400##BJ1		40					
BS016010BE500##BJ1		50					

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PART NUMBER	CERAMIC	CAP. VALUES (pF)	RATED VOLTAGE (kV _P)	RATED POWER ⁽¹⁾ (kvar)	RATED CURRENT (A _{RMS})		
TYPE TOS 025016							
BS025016WC920##BF1	R7	2.0	9.0	5.0	5.0		
BS025016WC930##BF1		3.0					
BS025016WC940##BF1		4.0					
BS025016WC950##BF1		5.0					
BS025016WC960##BF1		6.0					
BS025016WC970##BF1		7.0					
BS025016WC980##BG1	R16	8.0		8.0	6.0		
BS025016WC100##BG1		10					
BS025016WC120##BH1	R42	12					
BS025016WC160##BH1		16					
BS025016WC200##BH1		20					
BS025016WC250##BH1		25					
BS025016WC300##BJ1		R85				30	10
BS025016WC400##BJ1	40						
BS025016WC500##BJ1	50						
BS025016WC600##BJ1	60						
BS025016WC700##BJ1	70						
BS025016WC800##BJ1	80						
BS025016WC101##BJ1	100						

Notes

- # 14th to 15th digit: Capacitance tolerance code < 10 pF: ± 2 pF = 15; ± 1 pF = 14; ± 0.5 pF = 13
 ≥ 10 pF: ± 20 % = 38; ± 10 % = 36; ± 5 % = 33

⁽¹⁾ The surface temperature during operation must not exceed + 100 °C



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BF016010BE960##BG1		6.0					
BF016010BE970##BH1	R42	7.0				4.0	4.0
BF016010BE980##BH1		8.0					
BF016010BE100##BH1		10					
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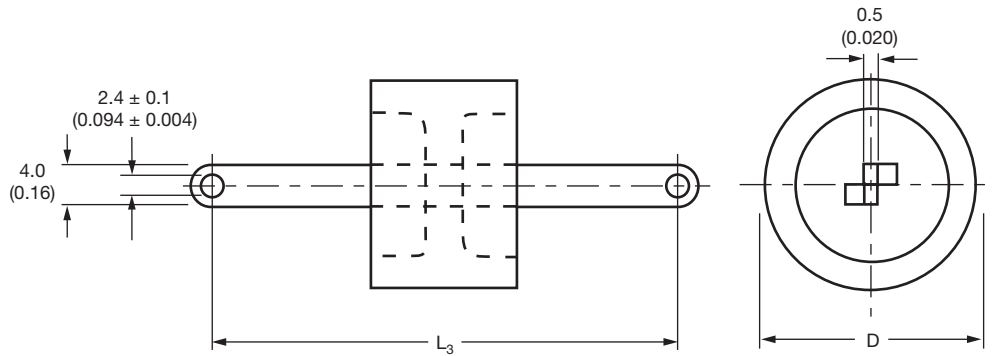
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- (1) The surface temperature during operation must not exceed + 100 °C

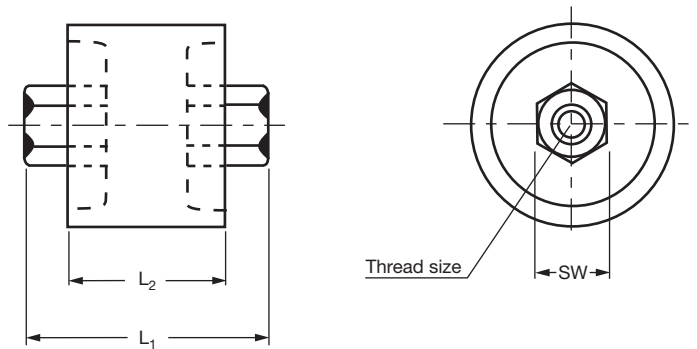


DIMENSIONS in millimeters (inches)

TOF



TOS



TYPE	TOF 016010	TOS 016010	TOF 025016	TOS 025016
Diameter $D_{max.}$	16 (0.63)	16 (0.63)	25 (0.98)	25 (0.98)
Thread size	-	M5 4.5 (0.178) depth	-	M6 7.0 (0.28 depth)
Length L_1 max. ⁽¹⁾	-	23 (0.91)	-	35 (1.38)
Length L_2 max. ⁽¹⁾	10 (0.39)	10 (0.39)	16 (0.63)	16 (0.63)
Length L_3 max. ⁽¹⁾	49 max. (1.93 max.)	-	55 max. (2.17 max.)	-
SW	-	8.0 (0.32) HEX	-	10 (0.39) HEX
Allowable torque ⁽²⁾	-	3.5 Nm (31 lbf in)	-	5.0 Nm (44 lbf in)

Notes

- ⁽¹⁾ Dimension L_1 , L_2 and L_3 will vary depending upon capacitance value
- ⁽²⁾ Use wrenches when tightening the screws and nuts on both ends of the capacitor



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