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Vishay Draloric

RF Power Barrel 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	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	Mounting tags or screw terminal		

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 copper 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

 $< 10 \text{ pF: } \pm 2 \text{ pF; } \pm 1 \text{ pF; } \pm 0.5 \text{ pF}$ $\geq 10 \text{ pF: } \pm 20 \text{ %; } \pm 10 \text{ %; } \pm 5 \text{ %}$

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 M Ω (at 25 °C)

OPERATING TEMPERATURE RANGE

-55 °C to +100 °C



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PART NUMBER	CERAMIC	CAP. VALUES (pF)	RATED VOLTAGE (kV _p)	RATED POWER ⁽¹⁾ (kvar)	RATED CURRENT (A _{RMS})
TYPE TOS 016010			l	l	
BS016010BE915##BF1		1.5			
BS016010BE920##BF1	R7	2.0		3.0	3.0
BS016010BE930##BF1		3.0			
BS016010BE940##BF1		4.0			
BS016010BE950##BG1	D46	5.0			
BS016010BE960##BG1	R16	6.0			
BS016010BE970##BH1		7.0			
BS016010BE980##BH1		8.0	5.0		
BS016010BE100##BH1	R42	10	5.0		4.0
BS016010BE120##BH1		12			
BS016010BE160##BH1		16		4.0	
BS016010BE200##BJ1		20		4.0	
BS016010BE250##BJ1		25			
BS016010BE300##BJ1	R85	30			5.0
BS016010BE400##BJ1		40			
BS016010BE500##BJ1		50			
TYPE TOS 025016					
BS025016WC920##BF1		2.0		5.0	5.0
BS025016WC930##BF1	R7	3.0			
BS025016WC940##BF1		4.0			
BS025016WC950##BF1		5.0			
BS025016WC960##BF1		6.0			
BS025016WC970##BF1		7.0			
BS025016WC980##BG1	D46	8.0			
BS025016WC100##BG1	R16	10			
BS025016WC120##BH1		12]		
BS025016WC160##BH1	D40	16	9.0	8.0	6.0
BS025016WC200##BH1	R42	20			
BS025016WC250##BH1		25]		
BS025016WC300##BJ1		30]		
BS025016WC400##BJ1		40			
BS025016WC500##BJ1		50			ı
BS025016WC600##BJ1	R85	60]	10	10
BS025016WC700##BJ1		70]		
BS025016WC800##BJ1		80]		
BS025016WC101##BJ1		100			

Notes

^{• # 14&}lt;sup>th</sup> to 15th digit: capacitance tolerance code < 10 pF: \pm 2 pF = 15; \pm 1 pF = 14; \pm 0.5 pF = 13 \geq 10 pF: \pm 20 % = 38; \pm 10 % = 36; \pm 5 % = 33

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



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CAP. RATED RATED RATED					
PART NUMBER	CERAMIC	VALUES (pF)	VOLTAGE (kV _p)	POWER ⁽¹⁾ (kvar)	CURRENT (A _{RMS})
TYPE TOF 016010			<u>-</u>		
BF016010BE915##BF1		1.5			
BF016010BE920##BF1	R7	2.0		3.0	3.0
BF016010BE930##BF1		3.0			
BF016010BE940##BF1		4.0			
BF016010BE950##BG1	R16	5.0			
BF016010BE960##BG1	NIO	6.0			
BF016010BE970##BH1		7.0			
BF016010BE980##BH1		8.0	5.0		
BF016010BE100##BH1	R42	10	5.0		4.0
BF016010BE120##BH1		12			
BF016010BE160##BH1		16		4.0	
BF016010BE200##BJ1		20		4.0	
BF016010BE250##BJ1		25			
BF016010BE300##BJ1	R85	30			5.0
BF016010BE400##BJ1		40			
BF016010BE500##BJ1		50			
TYPE TOF 025016					
BF025016WC920##BF1		2.0			
BF025016WC930##BF1		3.0			
BF025016WC940##BF1	R7	4.0		5.0	5.0
BF025016WC950##BF1		5.0			
BF025016WC960##BF1		6.0			
BF025016WC970##BF1		7.0			
BF025016WC980##BG1	R16	8.0			
BF025016WC100##BG1	1110	10			
BF025016WC120##BH1		12			
BF025016WC160##BH1	D/12	16	9.0	8.0	6.0
BF025016WC200##BH1	R42	20			
BF025016WC250##BH1		25			
BF025016WC300##BJ1		30			
BF025016WC400##BJ1		40			
BF025016WC500##BJ1		50			
BF025016WC600##BJ1	R85	60		10	10
BF025016WC700##BJ1		70			
BF025016WC800##BJ1		80			
BF025016WC101##BJ1		100			

Notes

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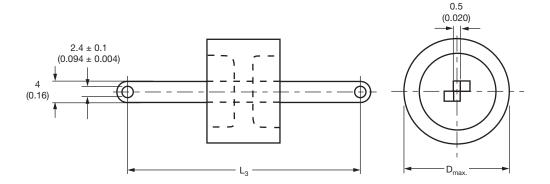
⁽¹⁾ The surface temperature during operation must not exceed +100 °C

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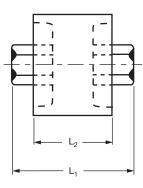
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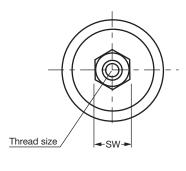
DIMENSIONS in millimeters (inches)

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 (0.177) depth	-	M6 7 (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 (0.31) 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

RELATED DOCUMENTS	
General Information	www.vishay.com/doc?22071



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