

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



QUICK REFERENCE DATA		
DESCRIPTION	VALUE	
Ceramic Class	1	
Ceramic Dielectric	R7, R42, R85	
Type	RA 012085 RE 012085	RA 012020 RB 012020 RE 012020
Voltage (V <sub>p</sub> )	2000	
Min. Capacitance (pF)	3.0	10
Max. Capacitance (pF)	100	400
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 and the ceramic base are additionally glazed.

### MARKING

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

### FEATURES

- Small size
- High reliability
- Wide range of capacitance values

### APPLICATIONS

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

### CAPACITANCE RANGE

3.0 pF to 400 pF

### CAPACITANCE TOLERANCE

< 10 pF: ± 2 pF; ± 1 pF; ± 0.5 pF  
 ≥ 10 pF: ± 20 %; ± 10 %; ± 5 %

### CERAMIC DIELECTRICS

- R7 (TCC + 100 ppm/K)
- R42 (TCC - 250 ppm/K)
- R85 (TCC - 750 ppm/K)

### RATED VOLTAGE

2.0 kV<sub>p</sub>

### DIELECTRIC STRENGTH TEST

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

### DISSIPATION FACTOR

R7: max. 0.07 % (1 MHz)  
 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 <sub>p</sub> )	RATED POWER <sup>(1)</sup> (kvar)	RATED CURRENT (A <sub>RMS</sub> )
<b>TYPE R. 012085</b>					
R#012085BB930##BF1	R7	3.0	2.0	0.7	4.0
R#012085BB940##BF1		4.0			
R#012085BB950##BF1		5.0			
R#012085BB960##BF1		6.0			
R#012085BB980##BF1		8.0			
R#012085BB100##BF1		10			
R#012085BB160##BH1	R42	16			
R#012085BB200##BH1		20			
R#012085BB250##BH1		25			
R#012085BB300##BH1		30			
R#012085BB400##BJ1	R85	40		0.8	
R#012085BB500##BJ1		50			
R#012085BB600##BJ1		60			
R#012085BB800##BJ1		80			
R#012085BB101##BJ1		100			
<b>TYPE R. 012020</b>					
R#012020BB100##BF1	R7	10	2.0	1.4	4.0
R#012020BB120##BF1		12			
R#012020BB160##BF1		16			
R#012020BB200##BF1		20			
R#012020BB250##BF1		25			
R#012020BB300##BF1		30			
R#012020BB400##BH1	R42	40			
R#012020BB500##BH1		50			
R#012020BB600##BH1		60			
R#012020BB800##BH1		80			
R#012020BB101##BJ1	R85	100		1.7	
R#012020BB121##BJ1		120			
R#012020BB161##BJ1		160			
R#012020BB201##BJ1		200			
R#012020BB251##BJ1		250			
R#012020BB301##BJ1		300			
R#012020BB401##BJ1		400			

**Notes**

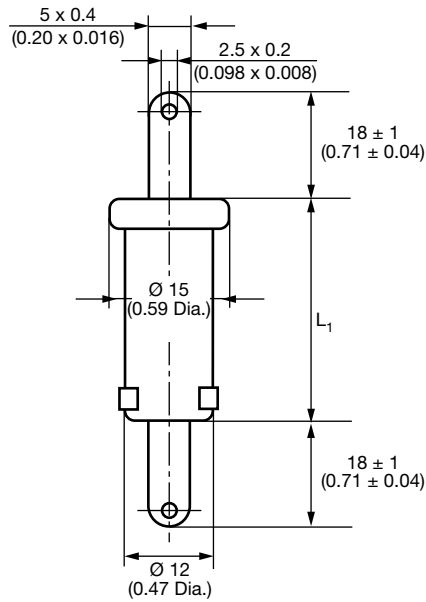
- # 2<sup>nd</sup> digit: code letter of the terminal version A, B, E (RB 012085 is not available)
- ## 14<sup>th</sup> to 15<sup>th</sup> digit: capacitance tolerance code < 10 pF: ± 2 pF = 15, ± 1 pF = 14, ± 0.5 pF = 13  
≥ 10 pF: ± 20 % = 38, ± 10 % = 36, ± 5 % = 33

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

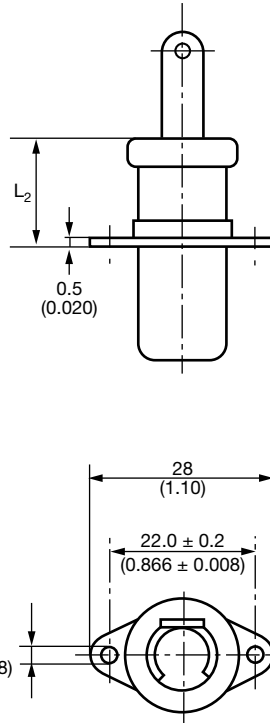


**DIMENSIONS** in millimeters (inches)

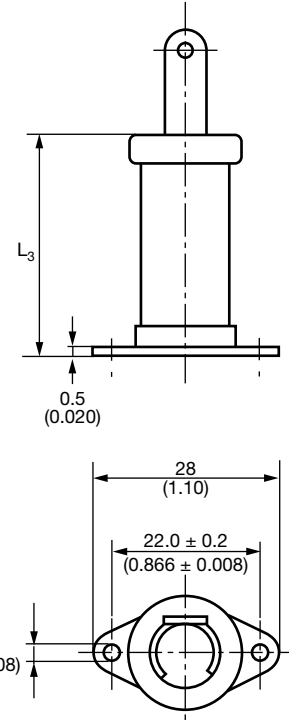
**RA**



**RB**



**RE**



TYPE	RA 012085 RE 012085	RA 012020 RB 012020 RE 012020
Length L <sub>1</sub>	8.5 (0.335)	20 (0.79)
Length L <sub>2</sub>	RB 012085 is not available	10 ± 1 (0.39 ± 0.04)
Length L <sub>3</sub>	10 ± 1 (0.39 ± 0.04)	22 ± 1 (0.87 ± 0.04)

**RELATED DOCUMENTS**

General Information	<a href="http://www.vishay.com/doc?22071">www.vishay.com/doc?22071</a>
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