



# ALUMINUM ELECTROLYTIC CAPACITOR

093 PMG-SI



## High Voltage Snap-In Type

### KEY BENEFITS

- Temperature range: - 25 °C to + 85 °C
- Useful life at 85 °C and  $I_R$  applied: 2000 hours
- Case sizes: 22 mm x 25 mm to 35 mm x 50 mm
- Capacitance rating: 68  $\mu$ F to 2200  $\mu$ F (tolerance  $\pm$  20 %)
- Voltage ratings: 200 V to 450 V

### APPLICATIONS

- Digital TV receiver power supply
- Consumer welding equipment
- Uninterruptible power supply (UPS)
- Air-conditioning motor control
- Washing machine motor control
- Refrigerator compressor motor control

Datasheet is available on our web site at [www.vishay.com](http://www.vishay.com)  
for 093 PMG-SI - <http://www.vishay.com/doc?28383>

# Aluminum Capacitors

## Power Miniaturized General Purpose Snap-In

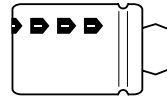
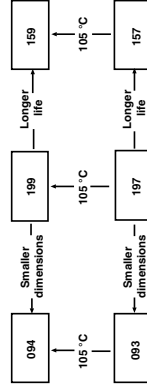


Fig. 1 Component outlines



### FEATURES

- Polarized aluminum electrolytic capacitors, non-solid electrolyte
- Large types, miniaturized dimensions, cylindrical aluminum case insulated with a blue sleeve
- Useful life: 2000 hours at 85 °C



### APPLICATIONS

- Consumer electronics
- Whitegood motor control
- Electronic drives
- Smtps/ups

### MARKING

The capacitors are marked (where possible) with the following information:

- Rated capacitance (in  $\mu\text{F}$ )
- Tolerance on rated capacitance, code letter in accordance with IEC 60062 (M for  $\pm 20\%$ )
- Rated voltage (in V)
- Date code
- Name of manufacturer
- '-' sign to identify the negative terminal, visible from the top and side of the capacitor
- Code number (last 8 digits)
- Maximum operating temperature

DESCRIPTION	VALUE
Normal case size (Ø D x L in mm)	22 x 25 to 35 x 50
Rated capacitance range, C <sub>r</sub>	68 $\mu\text{F}$ to 2200 $\mu\text{F}$
Tolerance on C <sub>r</sub>	$\pm 20\%$
Rated voltage range, U <sub>r</sub>	200 V to 450 V
Category temperature range	-25 to +85 °C
Useful life at 85 °C	2000 hours
Useful life at 40 °C and 1.4 x I <sub>r</sub> applied	36 000 hours
Shelf life at 0 V, 85 °C	500 hours
Based on sectional specification	IEC 60 384-4/EN130300/W of JIS C5141

C <sub>r</sub> (μF)	U <sub>r</sub> (V)		Ø D x L (in mm)
	400	420	
68	200	22 x 25	450
82		22 x 25	22 x 25
100		22 x 25	22 x 30
120		22 x 25	22 x 30
150		22 x 30	22 x 25
		25 x 25	22 x 35
180		22 x 35	22 x 40
		25 x 30	25 x 30
		25 x 30	30 x 25
220		22 x 40	22 x 50
		25 x 30	25 x 35
		30 x 25	30 x 25
		22 x 50	30 x 30
270		22 x 30	35 x 25

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C <sub>r</sub> (μF)	U <sub>r</sub> (V)		Ø D x L (in mm)
	200	250	
330	250 <td>400 <td>420</td> </td>	400 <td>420</td>	420
	22 x 35	25 x 40	25 x 50
	22 x 35	30 x 30	30 x 35
390	22 x 30	25 x 25	35 x 30
	22 x 35	25 x 30	30 x 40
	25 x 30	35 x 30	35 x 35
470	22 x 35	25 x 35	35 x 35
	25 x 30	35 x 40	35 x 40
560	25 x 30	30 x 45	30 x 50
	25 x 35	35 x 35	35 x 40
680	25 x 30	35 x 40	35 x 45
820	25 x 40	35 x 50	35 x 50
1000	30 x 35	35 x 50	35 x 50
1200	30 x 40	35 x 40	35 x 40
1500	30 x 45	35 x 45	35 x 45
1800	30 x 50	35 x 50	35 x 50
2200	35 x 45		

### DIMENSIONS in millimeters AND AVAILABLE FORMS

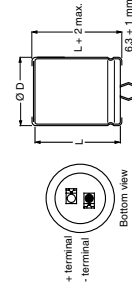


Fig. 2 Two terminal snap-in

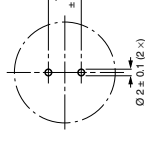


Fig. 3 Mounting hole diagram

Table 1

NOMINAL CASE SIZE Ø D x L	Ø D <sub>max.</sub>	L <sub>max.</sub>	MASS (g)	PACKAGING QUANTITIES	CARDBOARD BOX DIMENSIONS L x W x H
22 x 25	22.5	25.5	≈ 12	216	280 x 240 x 140
22 x 30	22.5	30.5	≈ 16	144	280 x 240 x 140
22 x 35	22.5	35.5	≈ 20	144	280 x 240 x 105
22 x 40	22.5	40.5	≈ 23	144	280 x 240 x 105
22 x 45	22.5	45.5	≈ 26	144	280 x 240 x 140
22 x 50	22.5	50.5	≈ 29	72	280 x 240 x 105
25 x 30	25.5	32.0	≈ 20	216	280 x 240 x 140
25 x 35	25.5	35.5	≈ 24	144	280 x 240 x 105
25 x 40	25.5	40.5	≈ 27	144	280 x 240 x 105
25 x 45	25.5	45.5	≈ 32	144	280 x 240 x 140
25 x 50	25.5	50.5	≈ 36	72	280 x 240 x 105
30 x 30	30.5	32.5	≈ 25	168	280 x 240 x 140
30 x 35	30.5	35.5	≈ 30	168	280 x 240 x 140
30 x 40	30.5	37.5	≈ 35	112	280 x 240 x 105
30 x 45	30.5	41.5	≈ 40	112	280 x 240 x 105
30 x 50	30.5	45.5	≈ 45	56	280 x 240 x 140
35 x 25	35.5	51.5	≈ 50	112	280 x 240 x 140
35 x 30	35.5	55.5	≈ 55	112	280 x 240 x 140
35 x 35	35.5	59.5	≈ 60	56	280 x 240 x 105
35 x 40	35.5	63.5	≈ 65	56	280 x 240 x 105
35 x 45	35.5	67.5	≈ 70	56	280 x 240 x 140
35 x 50	35.5	71.5	≈ 75	56	280 x 240 x 140

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