

PSA SERIES

85°C, Screw terminal type

■ Features

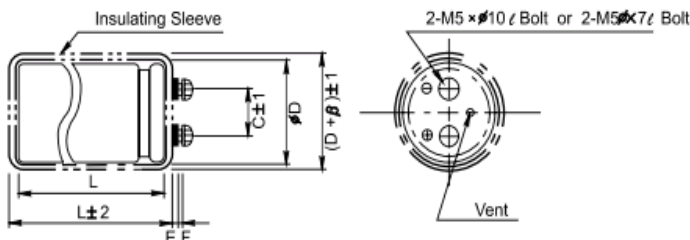
- 85°C, Screw terminal
- Smaller dimensions and large capacity
- Large allowable ripple current
- Load life of 2,000 hours at 85°C



■ Specifications

Item	Performance Characteristics				
Operating temperature range	-40°C ~ +85°C		-25°C ~ +85°C		
Rated working voltage range	10V ~ 250V		350V ~ 500V		
Nominal capacitance range	120 μF ~ 680,000 μF , ±20% (at 20°C, 120Hz)				
D.C Leakage current(at 20°C)	The following specifications shall be satisfied when the rated voltage is applied for the required time $I \leq 0.02CV$ or 5mA (5min), whichever is less. Where I = Leakage current(μA) C = Nominal capacitance(μF) V = Rated voltage (V)				
Tan δ (max., at 20°C, 120Hz)	W.V	Tan δ	W.V	Tan δ	
	10	0.8 until 50,000μA	50~100	0.3 until 50,000μA	
	16	0.7 until 50,000μA	160~250	0.15 until 50,000μA	
	25~35	0.5 until 50,000μA	350~500	0.20 until 50,000μA	
	When capacitance is over 10,000μA, Tan δ shall be added 0.025 to the listed value with increase of every each 10,000μA.				
Characteristics at low temperature(max.) (impedance ratio at 120Hz)	W.V(V)	10~16	35~100	160~250	350~500
	Z-25°C/Z+20°C	4	3	3	8
	Z-40°C/Z+20°C	12	6	6	-
Load life	After applying rated working voltage for 2,000 hours at +85°C and then listed being stabilized at +20°C, capacitors shall meet following limits.				
	Capacitance change	Within ± 20% of the initial measured value			
	Tan δ	≤ 300% of the initial specified value			
	Leakage current	≤ The initial specified value			
Shelf life	After storage for 1,000hours at + 85°C with no voltage applied and then being stabilized at +20°C, capacitors shall meet following limits.				
	Capacitance change	Within ± 20% of the initial measured value			
	Tan δ	≤ 300% of the initial specified value			
	Leakage current	≤ The initial specified value			

■ Dimensions



Φ D	C	E	F	β
35	12.7	2.5	6.0	1.0
51	22.0	2.5	6.0	1.5
63.5	28.6	2.5	6.0	1.5
76	31.0	1.5	6.5	1.5
89	0.5	1.5	6.5	1.5

■ Ripple current coefficient

• Frequency

W.V(V)	Freq(Hz)	50	120	1K	10K	100K
10 ~ 100		0.90	1.00	1.10	1.15	1.25
160~250		0.80	1.00	1.25	1.40	1.50
350~500		0.84	1.00	1.15	1.20	1.32

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■ Dimensions & Maximum permissible ripple current

μF \ V	10	16	25	35	50	63	80	100
3,300								35 x 50 3.0
3,900								35 x 60 3.4
4,700								35 x 70 3.8
5,600							35 x 50 3.3	35 x 80 4.2
6,800						35 x 50 3.1	35 x 60 3.7	35 x 90 4.5
8,200						35 x 60 3.7	35 x 70 4.3	35 x 110 5.0
10,000					35 x 60 3.9	35 x 70 4.2	35 x 80 4.9	35 x 120 5.5
12,000				35 x 50 3.4	35 x 70 4.4	35 x 80 5.0	35 x 90 5.6	51 x 70 6.2
15,000				35 x 60 4.0	35 x 80 5.4	35 x 90 5.8	35 x 110 6.5	51 x 80 7.4
18,000			35 x 50 4.8	35 x 70 4.6	35 x 90 5.9	35 x 100 6.4	51 x 70 7.5	51 x 90 8.6
22,000			35 x 60 5.5	35 x 80 5.5	35 x 100 6.4	35 x 120 7.2	51 x 80 8.2	51 x 100 11.0
27,000		35 x 50 4.2	35 x 70 6.4	35 x 90 6.2	35 x 120 7.7	51 x 80 8.4	51 x 100 9.6	51 x 120 12.4
33,000		35 x 60 5.0	35 x 80 7.2	35 x 100 7.2	51 x 70 8.2	51 x 80 9.2	51 x 110 10.4	63.5 x 100 14.0
39,000		35 x 60 5.5	35 x 90 8.4	35 x 110 8.0	51 x 80 9.4	51 x 100 10.0	51 x 120 11.2	63.5 x 120 15.6
47,000	35 x 50 4.6	35 x 70 6.4	35 x 100 9.4	51 x 80 8.8	51 x 90 10.5	51 x 120 11.5	63.5 x 100 12.0	63.5 x 140 16.8
56,000	35 x 60 5.4	35 x 80 7.0	35 x 110 10.2	51 x 90 9.6	51 x 100 11.4	63.5 x 90 12.6	63.5 x 120 13.8	76 x 120 18.2
68,000	35 x 70 6.2	35 x 90 8.0	35 x 120 10.8	51 x 100 11.0	51 x 120 12.8	63.5 x 100 14.6	63.5 x 130 15.6	76 x 140 21.0
82,000	35 x 80 7.4	35 x 100 9.1	51 x 80 12.2	51 x 110 12.2	63.5 x 100 13.9	63.5 x 130 16.8	76 x 120 18.0	
100,000	35 x 90 8.0	35 x 120 10.5	51 x 100 16.5	51 x 120 13.6	63.5 x 120 14.8	63.5 x 140 17.4	76 x 130 21.3	
120,000	35 x 100 9.2	51 x 80 11.2	51 x 120 14.2	63.5 x 100 14.8	63.5 x 140 16.0	76 x 130 20.0	89 x 130 23.6	
150,000	51 x 80 10.2	51 x 90 12.0	51 x 120 15.0	63.5 x 120 15.6	76 x 120 18.2	76 x 140 22.0		
180,000	51 x 90 12.0	51 x 110 13.5	663.5 x 100 16.2	63.5 x 140 17.2	76 x 140 20.2	89 x 140 24.2		
220,000	51 x 100 13.2	51 x 120 14.6	63.5 x 120 17.6	76 x 130 19.0	89 x 140 22.4			
270,000	63.5 x 80 13.6	63.5 x 100 15.5	76 x 100 18.5	89 x 120 20.4				
330,000	63.5 x 90 15.0	63.5 x 110 17.1	76 x 120 20.5	89 x 140 22.5				
390,000	63.5 x 100 16.3	76 x 100 18.4	76 x 140 22.1					
470,000	63.5 x 110 17.0	76 x 120 19.5	89 x 140 23.0					
560,000	76 x 100 18.2	76 x 130 20.5						
680,000	76 x 120 20.5	Case size : $\Phi\text{D} \times \text{L}(\text{mm})$ Maximum permissible ripple current[A(rms) at 85°C, 120Hz]						

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■ Dimensions & Maximum permissible ripple current

μF \ V	160	180	200	250	350	400	450	500
120								35 x 50 0.7
270						35 x 50 1.4	35 x 50 1.4	35 x 80 1.2
330						35 x 60 1.6	35 x 60 1.6	35 x 100 1.4
390					35 x 60 1.2	35 x 70 1.9	35 x 70 1.8	35 x 120 1.7
470					35 x 50 1.4	35 x 80 2.2	35 x 80 2.0	51 x 70 1.8
560					35 x 60 1.7	35 x 90 2.5	35 x 100 2.4	51 x 80 2.3
680				35 x 50 1.6	35 x 50 1.9	35 x 100 2.8	35 x 120 2.8	51 x 90 2.5
820				35 x 60 2.0	35 x 60 2.2	35 x 110 3.3	51 x 70 3.0	51 x 120 2.9
1,000		35 x 50 2.2	35 x 50 2.4	35 x 70 2.4	35 x 70 2.6	51 x 70 3.5	51 x 80 3.8	63.5 x 100 3.4
1,200		35 x 60 2.7	35 x 60 2.8	35 x 80 2.7	35 x 80 3.2	51 x 90 4.4	51 x 100 4.4	63.5 x 110 4.5
1,500		35 x 70 3.1	35 x 70 3.4	35 x 100 3.3	51 x 90 4.0	51 x 100 5.0	51 x 110 5.2	63.5 x 120 4.6
1,800		35 x 80 3.6	35 x 80 4.0	35 x 120 4.0	51 x 100 4.8	51 x 110 5.6	51 x 130 5.7	63.5 x 130 5.2
2,200	35 x 80 4.0	35 x 90 4.2	35 x 100 4.6	51 x 80 4.8	51 x 120 5.8	51 x 130 6.5	63.5 x 110 6.6	76 x 120 6.1
2,700	35 x 100 5.0	35 x 100 5.0	35 x 120 5.0	51 x 90 5.5	51 x 70 7.0	63.5 x 110 7.6	63.5 x 130 7.8	76 x 160 7.7
3,300	35 x 120 6.2	51 x 70 5.8	51 x 80 5.6	51 x 100 6.2	63.5 x 80 8.0	63.5 x 130 9.0	76 x 110 8.6	89 x 150 8.8
3,900	51 x 70 6.8	51 x 80 6.8	51 x 90 6.4	51 x 120 7.0	63.5 x 90 9.2	63.5 x 140 9.8	76 x 130 10.0	89 x 160 10.1
4,700	51 x 80 7.6	51 x 90 7.6	51 x 100 7.2	63.5 x 100 8.1	76 x 100 10.4	76 x 130 11.5	76 x 140 11.4	
5,600	51 x 90 8.6	51 x 110 8.6	51 x 120 8.2	63.5 x 110 9.2	76 x 120 11.2	76 x 140 12.6	89 x 120 12.4	
6,800	51 x 100 9.8	51 x 120 9.4	63.5 x 90 9.0	63.5 x 120 10.2	76 x 100 12.8	89 x 120 13.8	89 x 140 14.6	
8,200	51 x 120 11.0	63.5 x 100 10.6	63.5 x 100 10.4	76 x 100 11.4	89 x 120 15.0	89 x 140 15.6		
10,000	63.5 x 100 12.4	63.5 x 120 11.5	63.5 x 120 11.6	76 x 120 12.5	89 x 140 17.2			
12,000	63.5 x 120 13.6	76 x 100 13.2	76 x 100 12.9	76 x 140 14.0				
15,000	76 x 100 15.0	76 x 120 15.4	76 x 120 14.0	89 x 140 16.4				
18,000	76 x 120 16.8	89 x 120 16.9	76 x 140 15.6					
22,000	76 x 140 18.6	89 x 140 19.0						
27,000	89 x 120 21.2							
33,000	89 x 140 23.8	Case size : $\Phi\text{D} \times \text{L}(\text{mm})$ Maximum permissible ripple current[A(rms) at 85°C, 120Hz]						