

FEATURES

- +125°C, high temperature.
- High reliability equipment in automotive power electronics, e.g. integrated starter alternator.



SPECIFICATIONS

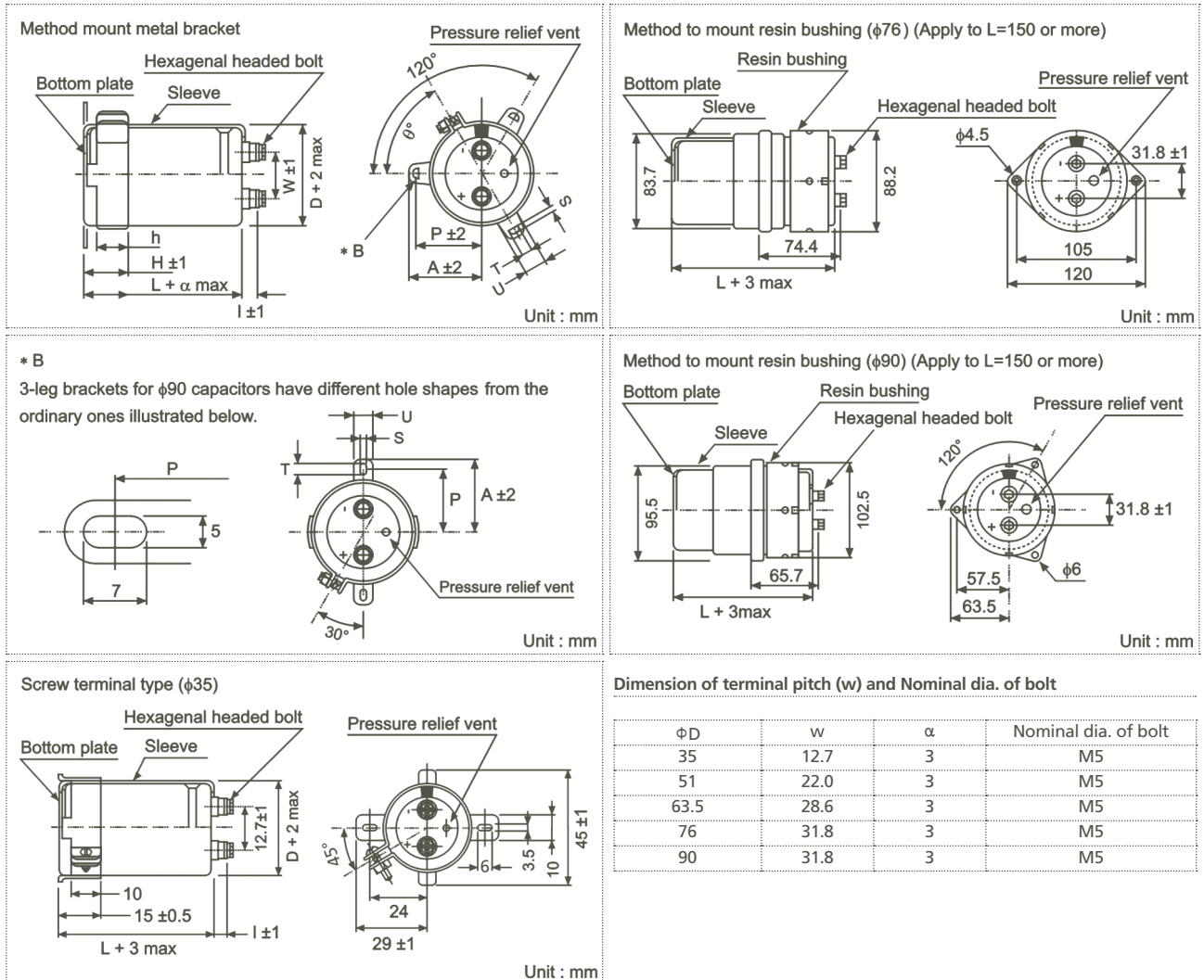
Item	Performance Characteristics			
Operating Temperature Range	-25 to +125°C			
Rated Working Voltage Range	160 to 400V			
Nominal Capacitance Range	330 to 15000µF			
Capacitance Tolerance	±20% at 120Hz, +20°C			
Leakage Current	I ≤ 0.02CV (µA) or 5 (mA) whichever is smaller measured after 5 minutes application of rated working voltage at +20°C			
tan δ (120Hz, +20°C)	The values shown in the STANDARD RATINGS tables			
Low Temperature Characteristics	Impedance ratio max. at 120Hz			
	<table border="1"> <tr> <td>Working Voltage (V)</td> <td>160~400</td> </tr> <tr> <td>Z-25°C / Z+20°C</td> <td>8</td> </tr> </table>	Working Voltage (V)	160~400	Z-25°C / Z+20°C
Working Voltage (V)	160~400			
Z-25°C / Z+20°C	8			
High Temperature Loading	Test time : 3,000 hours Test temperature : +125°C Test conditions : Rated DC working voltage with rated ripple current			
	Post test requirements at +20°C Leakage current : ≤ Initial specified value Cap. change : within ±30% of the initial measured value tan δ : ≤ 300% of the initial specified value			
Shelf Life	At +125°C no voltage applied after 1,000 hours and then being stabilized at +20°C the capacitors shall meet the following limits Leakage current : ≤ Initial specified value Cap. change : within ±20% of the initial measured value tan δ : ≤ 200% of the initial specified value			
Industrial Standard	JIS C - 5101-4 (IEC 60384-4)			

PART NUMBER SYSTEM (EXAMPLE : 200V 1000µF)

1	2 3	4 5 6	7	8 9	10	11 12	13 14
E	WB	108	M	2D	Q	80	OO

Type (Terminal Code)
 Case Length (80mm)
 Diameter (35mm)
 Voltage (200V)
 Tolerance (±20%)
 Capacitance (1000µF)
 Series
 E-CAP

CASE SIZE TABLE



Dimensions of mounting bracket

Voltage (Code)		3 - Leg				2 - Leg				
Symbol	ϕD	51	63.5	76	90	35	51	63.5	76	90
P		32.5	38.1	44.5	50.8	24	33.2	40.5	46.5	53
A		38.5	43	49.2	58.5	29	40	46.5	53	59
T		7.5	8.0	7.0	8.0	6.0	6.0	7.0	6.0	6.0
S		5.0	5.0	5.0	5.0	3.5	4.5	4.5	4.5	4.5
U		12	14	14	18	10	14	14	14	14
θ°		60	60	60	60	30	30	30	30	30
H		20	25	30	35	15	25	35	35	35
h		15	20	24	25	10	15	20	20	20

RIPPLE CURRENT MULTIPLIER

Frequency Coefficient

Coefficient	Freq. (Hz)	Rated Voltage				
		50	120	300	1k	10k~
<160V		0.80	1.00	1.08	1.15	1.15
		0.80	1.00	1.08	1.15	1.20

STANDARD RATINGS

Voltage (Code)		160V (2C)			200V (2D)			250V (2E)		
SV		200			250			300		
Cap. (μF)	Code	Case Size	tan δ	Ripple Current	Case Size	tan δ	Ripple Current	Case Size	tan δ	Ripple Current
330	337							35 x 50	0.15	0.7
390	397							35 x 80	0.15	0.8
470	477				35 x 50	0.15	0.9	35 x 80	0.15	0.9
560	567				35 x 80	0.15	1.0	35 x 80	0.15	1.0
680	687	35 x 50	0.15	1.1	35 x 80	0.15	1.1	35 x 100	0.15	1.2
820	827	35 x 80	0.15	1.2	35 x 80	0.15	1.3	35 x 100	0.15	1.4
1000	108	35 x 80	0.15	1.3	35 x 80	0.15	1.5	35 x 120	0.15	1.6
1200	128	35 x 80	0.15	1.5	35 x 100	0.15	1.7	51 x 80	0.15	1.8
1500	158	35 x 80	0.15	1.7	35 x 120	0.15	1.9	51 x 100	0.15	2.2
1800	188	35 x 100	0.15	2.0	35 x 120	0.15	2.2	51 x 120	0.15	2.6
2200	228	35 x 120	0.15	2.3	51 x 80	0.15	2.7	51 x 120	0.15	2.8
2700	278	35 x 120	0.15	2.7	51 x 100	0.15	3.2	63.5 x 100	0.15	3.3
3300	338	51 x 100	0.15	3.3	51 x 120	0.15	3.5	63.5 x 120	0.15	4.0
3900	398	51 x 120	0.15	3.8	63.5 x 100	0.15	4.0	76 x 100	0.15	4.4
4700	478	51 x 120	0.15	4.2	63.5 x 120	0.15	4.7	76 x 120	0.15	5.2
5600	568	51 x 120	0.15	4.7	76 x 100	0.15	5.3	76 x 140	0.15	6.1
6800	688	63.5 x 120	0.15	5.7	76 x 120	0.15	6.3	90 x 140	0.15	7.4
8200	828	76 x 100	0.20	6.4	76 x 140	0.20	6.4			
10000	109	76 x 120	0.20	6.6	90 x 140	0.20	7.7			
12000	129	76 x 140	0.20	7.8						
15000	159	90 x 140	0.20	9.5						

Maximum Allowable Ripple Current (Arms) at 125°C 120Hz
tan δ at 20°C 120Hz

Case Size ΦD x L (mm)

Voltage (Code)		350V (2V)			400V (2G)		
SV		400			450		
Cap. (μF)	Code	Case Size	tan δ	Ripple Current	Case Size	tan δ	Ripple Current
680	687				51 x 80	0.25	3.0
820	827	51 x 80	0.25	3.3			
1200	128				51 x 100	0.25	4.7
1500	158	51 x 100	0.25	5.2			
1800	188				63.5 x 90	0.25	6.3
2200	228	63.5 x 90	0.25	7.0	63.5 x 110	0.25	7.5
2700	278	63.5 x 110	0.25	8.4	63.5 x 120	0.25	8.8
3300	338	63.5 x 120	0.25	9.9	63.5 x 140	0.25	10.5
					76 x 110	0.25	9.9
3900	398	63.5 x 140	0.25	11.5			
		76 x 110	0.25	10.8			
4700	478				63.5 x 150	0.25	13.4
5600	568	76 x 150	0.25	14.7			
6800	688	76 x 170	0.25	16.8	76 x 190	0.25	17.9
					90 x 160	0.25	17.2
8200	828	76 x 190	0.25	19.6	90 x 190	0.25	20.1
10000	109	90 x 190	0.25	23.0			

Maximum Allowable Ripple Current (Arms) at 125°C 120Hz
tan δ at 20°C 120Hz

Case Size ΦD x L (mm)

Specifications are subject to change without notice. Should a safety or technical concern arise regarding the product, please be sure to contact our sales offices or agents immediately.