

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	Post test requirements at +20°C		
	Test temperature : +125°C	Leakage current : ≤ Initial specified value		
	Test conditions : Rated DC working voltage with rated ripple current	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)			

RIPPLE CURRENT MULTIPLIER

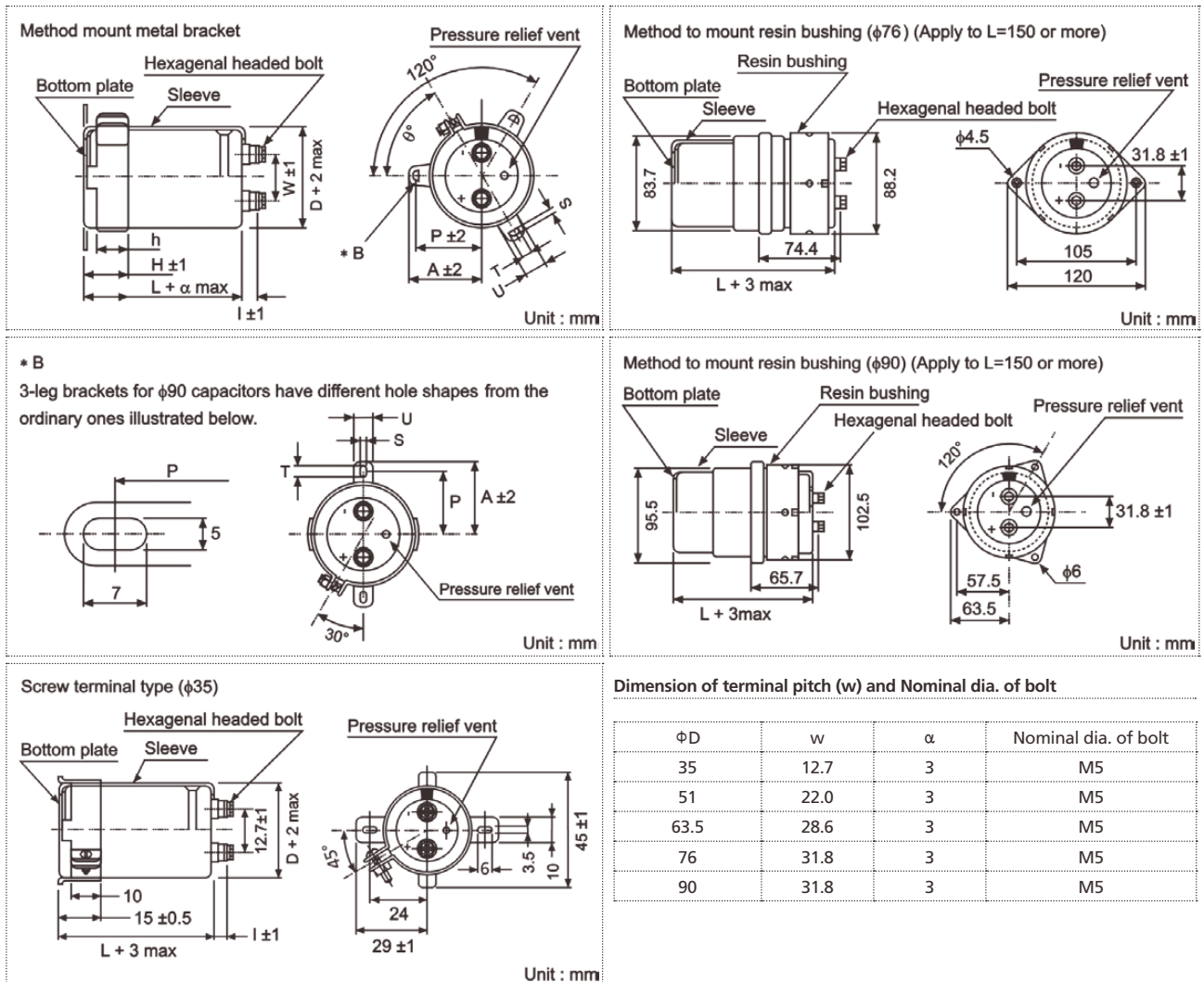
Frequency Coefficient

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

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

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.