SME Series

- Endurance with ripple current : 2,000 hours at 85℃
- RoHS2 Compliant

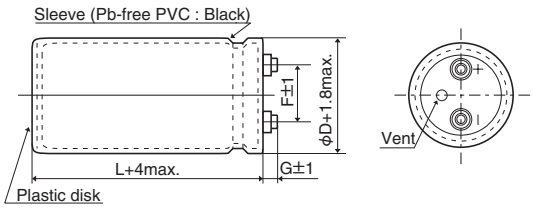
KMH P7-6
105℃
SME

◆SPECIFICATIONS

Items	Characteristics	
Category Temperature Range	-40 to +85℃ (10 to 100V_{dc})	
Rated Voltage Range	10 to 100V_{dc}	
Capacitance Tolerance	±20% (M)	(at 20℃, 120Hz)
Leakage Current	I=0.02CV or 5mA, whichever is smaller. Where, I : Max. leakage current (μA), C : Nominal capacitance (μF), V : Rated voltage (V)	(at 20℃ after 5 minutes)
Dissipation Factor (tan δ)	Shall not exceed the values shown in the STANDARD RATINGS	(at 20℃, 120Hz)
Low Temperature Characteristics	Capacitance change C(-25℃)/C(+20℃)≧0.7	(at 120Hz)
Insulation Resistance	When measured between the terminals that are connected to each other and to the mounting clamp on the insulating sleeve covering the case by using an insulation resistance meter of 500V_{dc}, the insulation resistance shall not be less than 100MΩ.	
Insulation Withstanding Voltage	When a voltage of 2,000V_{ac} is applied for 1 minute between the terminals that are connected to each other and to the mounting clamp on the insulating sleeve covering the case, there shall not be electrical damage.	
Endurance	The following specifications shall be satisfied when the capacitors are restored to 20℃ after subjected to DC voltage with the rated ripple current is applied (the peak voltage shall not exceed the rated voltage) for 2,000 hours at 85℃.	
	Capacitance change	≦±20% of the initial value
	D.F. (tan δ)	≦200% of the initial specified value
	Leakage current	≦The initial specified value
Shelf Life	The following specifications shall be satisfied when the capacitors are restored to 20℃ after exposing them for 500 hours at 85℃ without voltage applied. Before the measurement, the capacitor shall be preconditioned by applying voltage according to Item 4.1 of JIS C 5101-4.	
	Capacitance change	≦±20% of the initial value
	D.F. (tan δ)	≦150% of the initial specified value
	Leakage current	≦The initial specified value

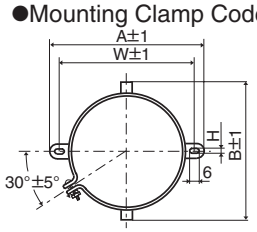
◆DIMENSIONS (Screw-Mount) [mm]

●Terminal Code : LG



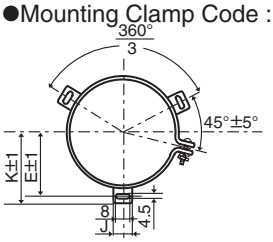
ϕ35 to ϕ63.5 : G=6
ϕ76.2 & ϕ89 : G=5

●Mounting Clamp Code : B



ϕD	A	B	W	H	F
35	58.0	44.0	48.0	3.5	12.7
50	78.0	64.0	68.0	4.5	22.4
63.5	90.0	76.0	80.0	4.5	28.0
76.2	104.5	90.0	93.5	4.5	31.5

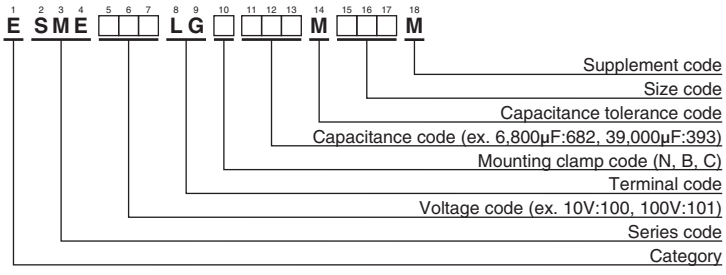
●Mounting Clamp Code : C



ϕD	E	K	J	F
50	32.5	37.0	14.0	22.4
63.5	38.1	43.5	14.0	28.0
76.2	44.5	50.0	14.0	31.5
89	50.8	56.5	16.0	31.5

<Screw specifcations>
Plus hexagon-headed screw :M5×0.8×10
Maximum screw tightening torque :3.23Nm
* The screw and the mounting clamp are separately supplied and not attached to the product.

◆PART NUMBERING SYSTEM



Please refer to "Product code guide (screw-mount terminal type)"

SME Series

◆STANDARD RATINGS

WV (V_{dc})	Cap (μF)	Case size φD×L(mm)	tan δ	Rated ripple current (Arms/ 85℃, 120Hz)	Part No.
10	39,000	35 × 50	0.60	4.70	ESME100LGB393MA50M
	82,000	35 × 80	0.60	7.40	ESME100LGB823MA80M
	100,000	35 × 100	0.70	8.00	ESME100LGB104MAA0M
	120,000	35 × 120	0.70	9.40	ESME100LGB124MAC0M
	150,000	50 × 80	0.90	9.80	ESME100LGC154MC80M
	220,000	50 × 100	1.00	12.1	ESME100LGC224MCA0M
	270,000	50 × 120	1.20	13.6	ESME100LGC274MCC0M
	390,000	63.5 × 100	1.50	15.3	ESME100LGC394MDA0M
	470,000	63.5 × 120	2.00	16.0	ESME100LGC474MDC0M
	560,000	76.2 × 100	2.50	17.3	ESME100LGC564MEA0M
	680,000	76.2 × 120	3.00	18.7	ESME100LGC684MEC0M
16	27,000	35 × 50	0.45	4.20	ESME160LGB273MA50M
	56,000	35 × 80	0.60	6.50	ESME160LGB563MA80M
	82,000	35 × 100	0.70	8.00	ESME160LGB823MAA0M
	100,000	35 × 120	0.70	9.60	ESME160LGB104MAC0M
	120,000	50 × 80	0.80	9.60	ESME160LGC124MC80M
	150,000	50 × 100	0.90	11.2	ESME160LGC154MCA0M
	220,000	50 × 120	1.00	14.2	ESME160LGC224MCC0M
	270,000	63.5 × 100	1.20	15.3	ESME160LGC274MDA0M
	330,000	63.5 × 120	1.30	17.1	ESME160LGC334MDC0M
	390,000	76.2 × 100	1.60	18.0	ESME160LGC394MEA0M
	470,000	76.2 × 120	1.80	19.3	ESME160LGC474MEC0M
	560,000	76.2 × 140	2.00	20.7	ESME160LGC564MEE0M
25	18,000	35 × 50	0.35	4.00	ESME250LGB183MA50M
	39,000	35 × 80	0.40	6.20	ESME250LGB393MA80M
	47,000	35 × 100	0.40	7.40	ESME250LGB473MAA0M
	56,000	35 × 120	0.45	8.30	ESME250LGB563MAC0M
	82,000	50 × 80	0.50	9.70	ESME250LGC823MC80M
	100,000	50 × 100	0.60	10.8	ESME250LGC104MCA0M
	120,000	50 × 120	0.60	12.8	ESME250LGC124MCC0M
	180,000	63.5 × 100	0.75	14.7	ESME250LGC184MDA0M
	220,000	63.5 × 120	0.80	16.8	ESME250LGC224MDC0M
	270,000	76.2 × 100	0.90	18.3	ESME250LGC274MEA0M
	330,000	76.2 × 120	1.00	20.7	ESME250LGC334MEC0M
	390,000	76.2 × 140	1.20	22.1	ESME250LGC394MEE0M
	560,000	89 × 140	1.50	25.8	ESME250LGC564MFE0M
35	15,000	35 × 50	0.30	3.90	ESME350LGB153MA50M
	33,000	35 × 80	0.40	6.00	ESME350LGB333MA80M
	39,000	35 × 100	0.40	7.00	ESME350LGB393MAA0M
	47,000	35 × 120	0.45	8.00	ESME350LGB473MAC0M
	68,000	50 × 80	0.50	9.00	ESME350LGC683MC80M
	82,000	50 × 100	0.55	10.3	ESME350LGC823MCA0M
	120,000	50 × 120	0.60	12.8	ESME350LGC124MCC0M
	150,000	63.5 × 100	0.70	14.0	ESME350LGC154MDA0M
	180,000	63.5 × 120	0.70	16.6	ESME350LGC184MDC0M
	220,000	76.2 × 100	0.75	17.3	ESME350LGC224MEA0M
	270,000	76.2 × 120	0.80	19.8	ESME350LGC274MEC0M
	330,000	76.2 × 140	0.90	22.5	ESME350LGC334MEE0M
	470,000	89 × 140	1.00	28.3	ESME350LGC474MFE0M

WV (V_{dc})	Cap (μF)	Case size φD×L(mm)	tan δ	Rated ripple current (Arms/ 85℃, 120Hz)	Part No.
50	10,000	35 × 50	0.25	4.10	ESME500LGB103MA50M
	18,000	35 × 80	0.25	5.20	ESME500LGB183MA80M
	22,000	35 × 100	0.30	5.90	ESME500LGB223MAA0M
	27,000	35 × 120	0.35	6.60	ESME500LGB273MAC0M
	39,000	50 × 80	0.40	7.40	ESME500LGC393MC80M
	56,000	50 × 100	0.40	9.80	ESME500LGC563MCA0M
	68,000	50 × 120	0.45	11.1	ESME500LGC683MCC0M
	82,000	63.5 × 100	0.50	12.2	ESME500LGC823MDA0M
	120,000	63.5 × 120	0.50	16.0	ESME500LGC124MDC0M
	150,000	76.2 × 120	0.60	18.1	ESME500LGC154MEC0M
	180,000	76.2 × 140	0.70	19.5	ESME500LGC184MEE0M
	270,000	89 × 140	0.80	24.6	ESME500LGC274MFE0M
63	5,600	35 × 50	0.20	3.00	ESME630LGB562MA50M
	10,000	35 × 80	0.25	4.00	ESME630LGB103MA80M
	15,000	35 × 100	0.25	5.30	ESME630LGB153MAA0M
	18,000	35 × 120	0.25	6.20	ESME630LGB183MAC0M
	22,000	50 × 80	0.30	6.50	ESME630LGC223MC80M
	33,000	50 × 100	0.35	8.10	ESME630LGC333MCA0M
	39,000	50 × 120	0.35	9.60	ESME630LGC393MCC0M
	47,000	63.5 × 100	0.40	10.2	ESME630LGC473MDA0M
	68,000	63.5 × 120	0.40	13.3	ESME630LGC683MDC0M
	100,000	76.2 × 120	0.45	17.1	ESME630LGC104MEC0M
	120,000	76.2 × 140	0.50	19.0	ESME630LGC124MEE0M
	150,000	89 × 140	0.55	22.0	ESME630LGC154MFE0M
80	3,300	35 × 50	0.15	2.50	ESME800LGB332MA50M
	6,800	35 × 80	0.20	3.70	ESME800LGB682MA80M
	10,000	35 × 100	0.20	4.90	ESME800LGB103MAA0M
	12,000	35 × 120	0.20	5.40	ESME800LGB123MAC0M
	15,000	50 × 80	0.25	6.00	ESME800LGC153MC80M
	22,000	50 × 100	0.30	7.10	ESME800LGC223MCA0M
	27,000	50 × 120	0.30	8.60	ESME800LGC273MCC0M
	33,000	63.5 × 100	0.35	9.30	ESME800LGC333MDA0M
	47,000	63.5 × 120	0.35	12.0	ESME800LGC473MDC0M
	68,000	76.2 × 120	0.35	15.4	ESME800LGC683MEC0M
	82,000	76.2 × 140	0.35	18.1	ESME800LGC823MEE0M
	100,000	89 × 140	0.40	21.0	ESME800LGC104MFE0M
100	2,200	35 × 50	0.10	2.50	ESME101LGB222MA50M
	4,700	35 × 80	0.15	3.40	ESME101LGB472MA80M
	6,800	35 × 100	0.15	4.20	ESME101LGB682MAA0M
	8,200	35 × 120	0.15	5.00	ESME101LGB822MAC0M
	10,000	50 × 80	0.20	5.20	ESME101LGC103MC80M
	18,000	50 × 120	0.20	8.10	ESME101LGC183MCC0M
	22,000	63.5 × 100	0.25	8.60	ESME101LGC223MDA0M
	27,000	63.5 × 120	0.25	10.3	ESME101LGC273MDC0M
	33,000	76.2 × 100	0.25	11.1	ESME101LGC333MEA0M
	39,000	76.2 × 120	0.25	12.4	ESME101LGC393MEC0M
	47,000	76.2 × 140	0.25	14.3	ESME101LGC473MEE0M
	68,000	89 × 140	0.30	18.0	ESME101LGC683MFE0M

◆RATED RIPPLE CURRENT MULTIPLIERS

◎Frequency Multipliers

Rated voltage (V_{dc})	Case diameter (mm)	Frequency (Hz)					
		50	120	300	1k	10k	50k
10 to 50	φ35 to φ89	0.95	1.00	1.03	1.05	1.09	1.12
63 & 80	φ35	0.90	1.00	1.06	1.10	1.18	1.22
	φ50 to φ89	0.95	1.00	1.03	1.05	1.09	1.12
100	φ35	0.82	1.00	1.12	1.22	1.30	1.33
	φ50	0.90	1.00	1.06	1.10	1.18	1.22
	φ63.5 to φ89	0.95	1.00	1.03	1.05	1.09	1.12

The endurance of capacitors is reduced with internal heating produced by ripple current at the rate of halving the lifetime with every 5℃ rise. When long life performance is required in actual use, the rms ripple current has to be reduced.