Surface Mount Aluminum Electrolytic Capacitors

RoHS

SRE Series
(Low Impedence, 105°C)

MERITEK

FEATURES



- Load Life : 105°C 1000~2000 hours
- For high density mounting
- Low impedance at 100kHz

SPECIFICATIONS

Item	Characteristic						
Operation Temperature Range	-55 ~ +105°C						
Rated Working Voltage	6.3 ~ 50VDC						
Capacitance Tolerance (120Hz 20°C)	±20%(M)						
Leakage Current (20°C)	I ≤0.01CV or 3 (μA) *Whichever is greater after 2 minutes I: Leakage Current (μA) C: Rated Capacitance (μF) V: Working Voltage (V)						
Surge Voltage (20°C)	W.V.	6.3	10	16	25	35	50
	S.V.	8	13	20	32	44	63
	Add 0.02 per 1000uF for more than 1000 μF						
Dissipation Factor (tan δ) (120Hz 20°C)	W.V.	6.3	10	16	25	35	50
	tan δ Φ4~ Φ6.3	0.24	0.20	0.16	0.14	0.12	0.12
	tan δ Φ8~ Φ10	0.28	0.24	0.20	0.16	0.14	0.14
Low Temperature Stability	Impedance ratio at 120Hz						
	Rated Voltage (V)	6.3	10	16	25	35	50
	-25°C / +20°C	3	2	2	2	2	2
	-55°C / +20°C	5	4	4	3	3	3
Load Life	After hours (ΦD ≤ 6.3mm 1000 hours, ΦD ≥ 8mm 2000 hours) application of W.V. and +105°C ripple current value, the capacitor shall meet the following limits. (DC + ripple peak voltage ≤ rate working voltage)						
	Capacitance Change	≤ ±25% of initial value					
	Dissipation Factor	≤ 200% of initial specified value					
	Leakage current	≤ initial specified value					
Shelf Life	At +105°C, no voltage application after 1000 hours, the capacitor shall meet the limits for load life characteristics. (With voltage treatment)						
Resistance to Soldering Heat	Capacitors placed on a 250°C hot plate for 30 seconds with their electrode terminals facing downward will fulfill the following conditions after being cooled to room temperature.						
	Capacitance Change	≤ ±10% of initial value					
	Dissipation Factor	≤ initial specified value					
	Leakage current	≤ initial specified value					

PART NUMBERING SYSTEM

SRE 50V 152 M J 102

Meritek Series

Voltage

Capacitance
Capacitance expressed in microfarads (μF).
First two digits are significant figures.
Third digit denotes number of zeros.
'R' denotes decimal point for values less than 10 μF

Tolerance
M=±20%

Case Diameter Code

Case Height (mm)
The third digit denotes the first decimal place
For example, 102 = 10.2mm

Case Diameter Code	Φ D
D	Φ 4.0
E	Φ 5.0
F	Φ 6.3
H	Φ 8.0
J	Φ 10.0

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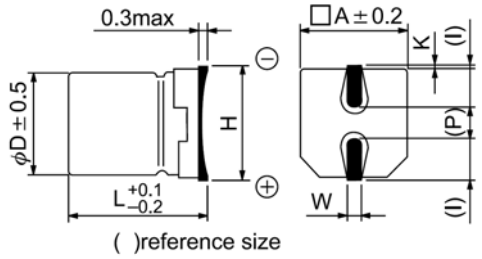
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DIMENSIONS (mm)

Φ D	L	A	H	I	W	P	K
Φ 4.0	5.8	4.3	5.5MAX	1.8	0.65±0.1	1.0	0.35 $^{+0.15}_{-0.20}$
Φ 5.0	5.8	5.3	6.5MAX	2.2	0.65±0.1	1.5	0.35 $^{+0.15}_{-0.20}$
Φ 6.3	5.8	6.6	7.8MAX	2.6	0.65±0.1	2.1	0.35 $^{+0.15}_{-0.20}$
Φ 6.3	7.7	6.6	7.8MAX	2.6	0.65±0.1	2.1	0.35 $^{+0.15}_{-0.20}$
Φ 8.0	10.2	8.3	10.0MAX	3.4	0.90±0.2	3.1	0.70 ± 0.2
Φ 10.0	10.2	10.3	12.0MAX	3.5	0.90±0.2	4.6	0.70 ± 0.2



CASE SIZE & MAX RIPPLE CURRENT

Case size : D x L (mm)
Max Impedance : Ω 20°C 100kHz
Max ripple current : mA(rms) 105°C 100kHz

Cap. (μF)	V	6.3			10			16			25			35			50		
	Item	DxL	IMP.	R.C.	DxL	IMP.	R.C.	DxL	IMP.	R.C.	DxL	IMP.	R.C.	DxL	IMP.	R.C.	DxL	IMP.	R.C.
1.0	010																4x5.8	5.00	30
2.2	2R2																4x5.8	5.00	30
3.3	3R3																4x5.8	5.00	30
4.7	4R7													4x5.8	1.80	80	5x5.8	1.52	85
6.8	6R8													5x5.8	1.20	120	5x5.8	1.20	120
10	100							4x5.8	1.80	80	4x5.8	1.80	80	5x5.8	0.76	150	6.3x5.8	0.88	165
15	150							4x5.8	1.80	80	5x5.8	0.76	150	5x5.8	0.76	150	6.3x5.8	0.88	165
22	220				4x5.8	1.80	80	5x5.8	0.76	150	5x5.8	0.76	150	5x5.8	0.76	150	6.3x5.8	0.88	165
27	270	4x5.8	1.80	80	5x5.8	0.76	150	5x5.8	0.76	150	6.3x5.8	0.44	230	6.3x5.8	0.44	230	6.3x7.7	0.68	185
33	330	5x5.8	0.76	150	5x5.8	0.76	150	6.3x5.8	0.44	230	6.3x5.8	0.44	230	6.3x5.8	0.44	230	6.3x7.7	0.68	185
47	470	5x5.8	0.76	150	6.3x5.8	0.44	230	6.3x5.8	0.44	230	6.3x5.8	0.44	230	6.3x5.8	0.44	230	6.3x7.7	0.68	185
56	560	5x5.8	0.76	150	6.3x5.8	0.44	230	6.3x5.8	0.44	230	6.3x5.8	0.44	230	6.3x7.7	0.34	280	8x10.2	0.34	300
68	680	6.3x5.8	0.44	230	6.3x5.8	0.44	230	6.3x5.8	0.44	230	6.3x5.8	0.44	230	6.3x7.7	0.34	280	8x10.2	0.34	300
100	101	6.3x5.8	0.44	230	6.3x5.8	0.44	230	6.3x5.8	0.44	230	6.3x7.7	0.34	280	8x10.2	0.17	450	8x10.2	0.34	300
150	151	6.3x5.8	0.44	230	6.3x5.8	0.44	230	6.3x7.7	0.34	280	8x10.2	0.17	450	8x10.2	0.17	450	10x10.2	0.18	670
220	221	6.3x5.8	0.44	230	6.3x7.7	0.34	280	6.3x7.7	0.34	280	8x10.2	0.17	450	8x10.2	0.17	450	10x10.2	0.18	670
330	331	6.3x7.7	0.34	280	8x10.2	0.17	450	8x10.2	0.17	450	8x10.2	0.17	450	10x10.2	0.09	670			
470	471	8x10.2	0.17	450	8x10.2	0.17	450	8x10.2	0.17	450	10x10.2	0.09	670						
680	681	8x10.2	0.17	450	10x10.2	0.09	670	10x10.2	0.09	670									
1000	102	8x10.2	0.17	450	10x10.2	0.09	670												
1500	152	10x10.2	0.09	670															