

Surface Mount Aluminum Electrolytic Capacitors



SREJ Series
(Low Impedance, Long Life)

MERITEK

FEATURES

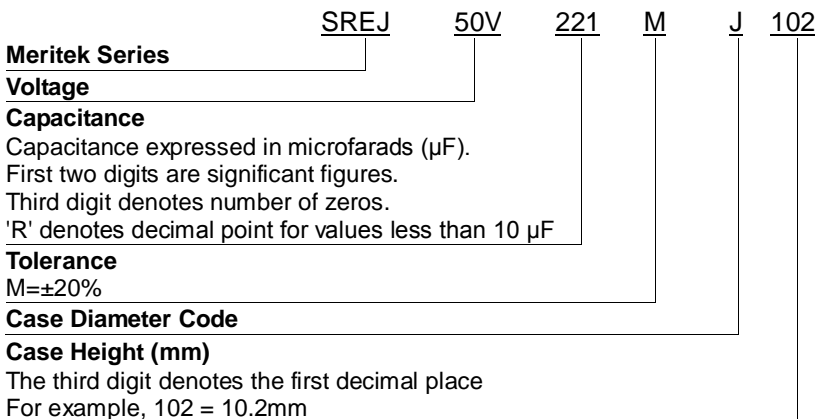
- Load Life : 105°C 5000 hours
- For high density mounting
- Low impedance at 100kHz



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	
Dissipation Factor (tan δ) (120Hz 20°C)	W.V.	6.3	10	16	25	35	50	
	tan δ	0.32	0.28	0.26	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	3	2	2	2	2	
	-55°C / +20°C	7	7	5	3	3	3	
Load Life	After 5000 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	≤ ±30% of initial value for 6.3 W.V., ≤ ±20% of initial value for 10~50 W.V.						
	Dissipation Factor	≤ 300% 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



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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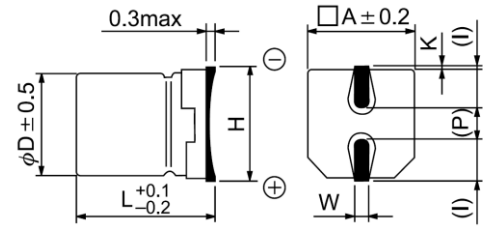


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DIMENSIONS (mm)

Φ D	L	A	H	I	W	P	K
Φ 4.0	5.4	4.3	5.5MAX	1.8	0.65±0.1	1.0	0.35 ^{+0.15} _{-0.20}
Φ 5.0	5.4	5.3	6.5MAX	2.2	0.65±0.1	1.5	0.35 ^{+0.15} _{-0.20}
Φ 6.3	5.4	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



() reference size

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.
10	100													5x5.4	2.20	95			
22	220							5x5.4	2.20	95	5x5.4	2.20	95	6.3x5.4	1.10	140			
33	330				5x5.4	2.20	95	6.3x5.4	1.10	140	6.3x5.4	1.10	140	6.3x7.7	1.00	230			
47	470	5x5.4	2.20	95	6.3x5.4	1.10	140	6.3x5.4	1.10	140	6.3x5.4	1.10	140	6.3x7.7	1.00	230	8x10.2	0.53	350
100	101	6.3x5.4	1.10	140	6.3x5.4	1.10	140	6.3x7.7	1.10	140	6.3x7.7	1.00	230	8x10.2	0.22	600	8x10.2	0.32	560
220	221	6.3x5.4	1.00	230	6.3x7.7	0.34	280	6.3x7.7	0.34	280	8x10.2	0.22	600	10x10.2	0.16	850	10x10.2	0.35	670
330	331	6.3x7.7	1.00	230	8x10.2	0.22	450	8x10.2	0.22	600	10x10.2	0.16	850						
470	471	8x10.2	0.22	600															

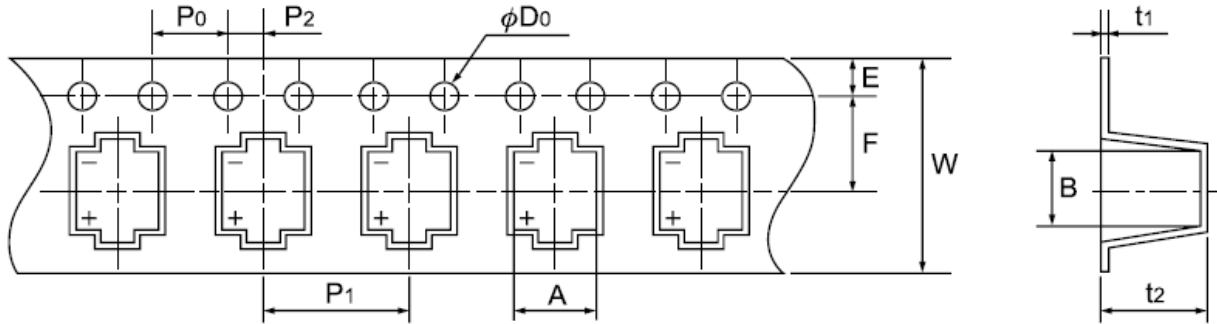
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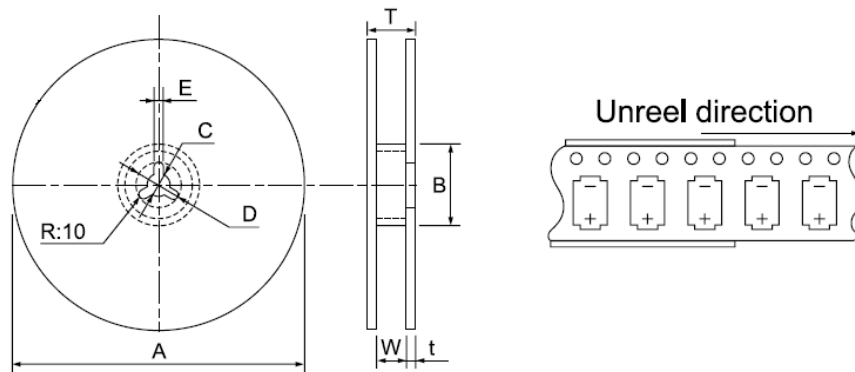
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TAPING



D x L	W ± 0.3	A ± 0.2	B ± 0.2	P_0 ± 0.1	P_1 ± 0.1	P_2 ± 0.1	F ± 0.1	ϕD_0 ± 0.1	t_1 ± 0.1	E ± 0.1	t_2 ± 0.2
$\phi 4 \times 5.4$	12.0	4.7	4.7	4.0	8.0	2.0	5.5	1.5	0.4	1.75	5.7
$\phi 5 \times 5.4$	12.0	5.7	5.7	4.0	12.0	2.0	5.5	1.5	0.4	1.75	5.7
$\phi 6.3 \times 5.4$	16.0	7.0	7.0	4.0	12.0	2.0	7.5	1.5	0.4	1.75	5.7
$\phi 4 \times 5.8$	12.0	4.7	4.7	4.0	8.0	2.0	5.5	1.5	0.4	1.75	6.3
$\phi 5 \times 5.8$	12.0	5.7	5.7	4.0	12.0	2.0	5.5	1.5	0.4	1.75	6.4
$\phi 6.3 \times 5.8$	16.0	7.0	7.0	4.0	12.0	2.0	7.5	1.5	0.4	1.75	6.4
$\phi 6.3 \times 7.7$	16.0	7.0	7.0	4.0	12.0	2.0	7.5	1.5	0.4	1.75	8.2
$\phi 8 \times 6.2$	16.0	8.7	8.7	4.0	12.0	2.0	7.5	1.5	0.4	1.75	6.8
$\phi 8 \times 10.2$	24.0	8.7	8.7	4.0	16.0	2.0	11.5	1.5	0.4	1.75	11.0
$\phi 10 \times 10.2$	24.0	10.7	10.7	4.0	16.0	2.0	11.5	1.5	0.4	1.75	11.0

PACKAGE



D x L	A ± 2.0	B MIN	C ± 0.5	D ± 0.8	E ± 0.5	W ± 1.0	T ± 1.0	t ± 0.5
$\phi 4 \phi 5$	380	50	13	21	2.0	14.0	20.0	3.0
$\phi 6.3$	380	50	13	21	2.0	18.0	24.0	3.0
$\phi 8 \times 6.2$	380	50	13	21	2.0	18.0	24.0	3.0
$\phi 8 \times 10.2$	380	50	13	21	2.0	26.0	32.0	3.0
$\phi 10 \times 10.2$	380	50	13	21	2.0	26.0	32.0	3.0

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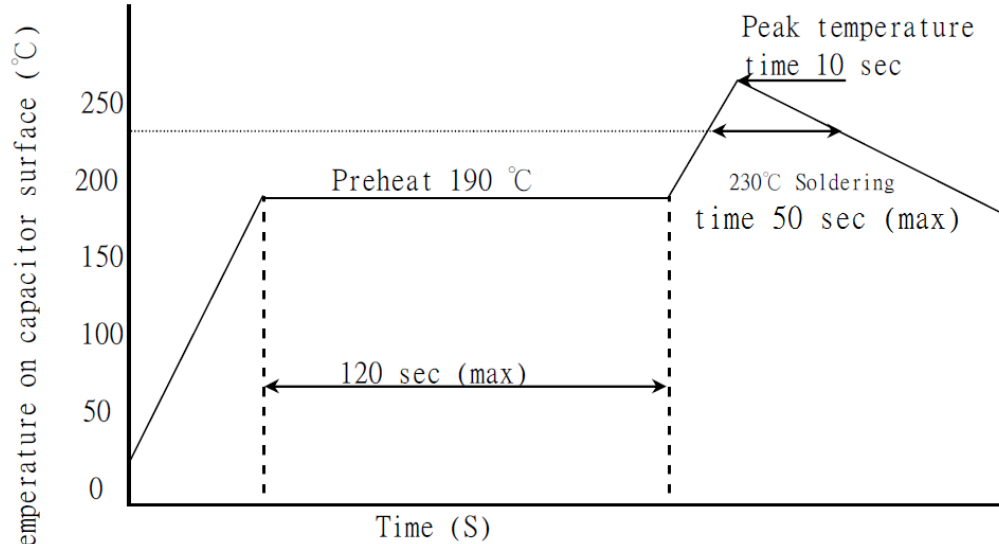


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PERMISSIBLE REFLOW CONDITION

AIR REFLOW AND IR REFLOW



Preheat: Within 120sec., 190°C or less.

Soldering Time: Within 50 sec., 230°C

Peak Temperature: Less than 250°C, within 10 sec.

Possible Reflow Cycle: 2 Cycles

The final test values should be as following:

- (A) Capacitance change: $\leq \pm 10\%$ of initial value
- (B) Dissipation factor: \leq initial specified value
- (C) Leakage current: \leq initial specified value
- (D) Visual: No damage