

Surface Mount Aluminum Electrolytic Capacitors



SRB Series
(General Purpose)

MERITEK

FEATURES

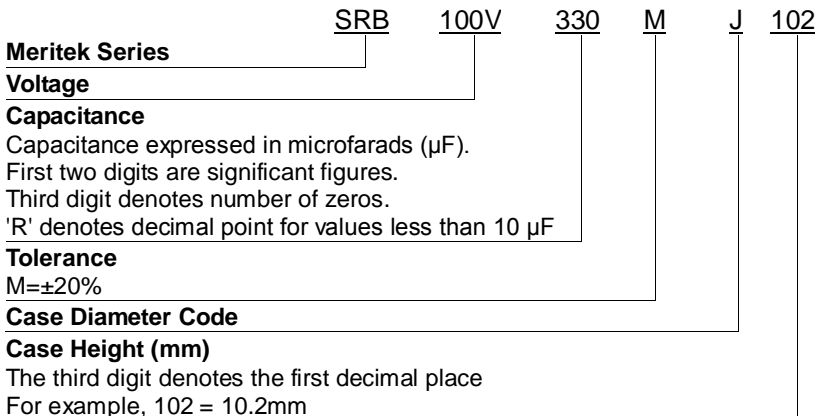
- Height : 5.4mm.
- Load life : 85°C 2000 hours.



SPECIFICATIONS

Item	Characteristic									
Operation Temperature Range	-40 ~ +85°C									
Rated Working Voltage	4 ~ 100VDC									
Capacitance Tolerance (120Hz 20°C)	±20%(M)									
Leakage Current (20°C)	$I \leq 0.01CV$ or $3 (\mu A)$ *Whichever is greater after 2 minutes I: Leakage Current (μA) C: Rated Capacitance (μF) V: Working Voltage (V)									
Surge Voltage (20°C)	W.V.	4	6.3	10	16	25	35	50	63	100
	S.V.	5	8	13	20	32	44	63	79	125
Dissipation Factor ($\tan \delta$) (120Hz 20°C)	Add 0.02 per 1000 μF for more than 1000 μF									
	W.V.	4	6.3	10	16	25	35	50	63	100
	$\tan \delta$	0.35	0.28	0.24	0.20	0.16	0.14	0.12	0.12	0.10
Low Temperature Stability	Impedance ratio at 120Hz									
	Rated Voltage (V)	4	6.3	10	16	25	35	50	63	100
	-25°C / +20°C	7	4	3	2	2	2	2	2	2
	-40°C / +20°C	15	8	6	4	4	3	3	3	3
Load Life	After 2000 hours application of W.V. and +85°C ripple current value, the capacitor shall meet the following limits. (DC + ripple peak voltage \leq rate working voltage)									
	Capacitance Change	$\leq \pm 20\%$ of initial value								
	Dissipation Factor	$\leq 200\%$ of initial specified value								
	Leakage current	\leq initial specified value								
Shelf Life	At +85°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	$\leq \pm 10\%$ of initial value								
	Dissipation Factor	\leq initial specified value								
	Leakage current	\leq initial specified value								

PART NUMBERING SYSTEM



Case Diameter Code	Φ D
B	Φ 3.0
D	Φ 4.0
E	Φ 5.0
F	Φ 6.3
H	Φ 8.0
J	Φ 10.0

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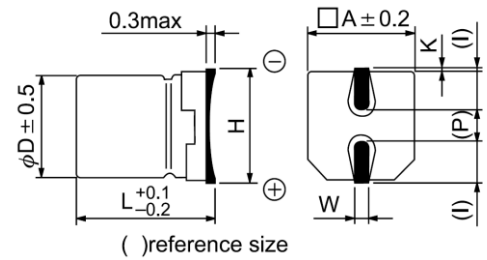


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DIMENSIONS (mm)

ΦD	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 8.0	6.2	8.3	9.5MAX	3.4	0.65±0.1	2.2	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 ripple current : mA(rms) 85°C 120Hz

Cap. (uF)	V	4		6.3		10		16		25		35		50	
		Item	DxL	R.C.	DxL	R.C.	DxL	R.C.	DxL	R.C.	DxL	R.C.	DxL	R.C.	DxL
0.1	0R1													4x5.4	3
0.22	R22													4x5.4	4
0.33	R33													4x5.4	5
0.47	R47													4x5.4	6
1	010													4x5.4	9
2.2	2R2													4x5.4	13
3.3	3R3													4x5.4	16
4.7	4R7									4x5.4	17	4x5.4	19	5x5.4	21
10	100							4x5.4	24	5x5.4	29	5x5.4	31	6.3x5.4	36
22	220			4x5.4	27	5x5.4	36	5x5.4	40	6.3x5.4	49	6.3x5.4	55	8x6.2	110
33	330	4x5.4	29	5x5.4	38	5x5.4	44	6.3x5.4	55	6.3x5.4	60	8x6.2	120	8x6.2	130
47	470	4x5.4	35	5x5.4	46	6.3x5.4	60	6.3x5.4	65	8x6.2	100	8x6.2	140	8x10.2	190
100	101	5x5.4	60	6.3x5.4	70	6.3x5.4	80	6.3x5.4	90	8x6.2	150	8x10.2	250	10x10.2	310
						8x6.2	130	8x6.2	140						
220	221	6.3x5.4	80	8x6.2	150	8x6.2	190	8x10.2	260	8x10.2	270	10x10.2	440	10x10.2	460
330	331	8x6.2	140	8x6.2	180	8x10.2	290	8x10.2	310	10x10.2	450	10x10.2	540		
470	471	8x10.2	210	8x10.2	260	10x10.2	420	10x10.2	450						
1000	102	8x10.2	300	10x10.2	460	10x10.2	610								
1500	152	10x10.2	440	10x10.2	560										

Cap. (uF)	V	63		100		
		Item	DxL	R.C.	DxL	R.C.
3.3	3R3				8x6.2	41
4.7	4R7				8x10.2	60
10	100				8x10.2	85
22	220	8x10.2	120	10x10.2	150	
33	330	8x10.2	140	10x10.2	180	
47	470	10x10.2	190			
100	101	10x10.2	280			

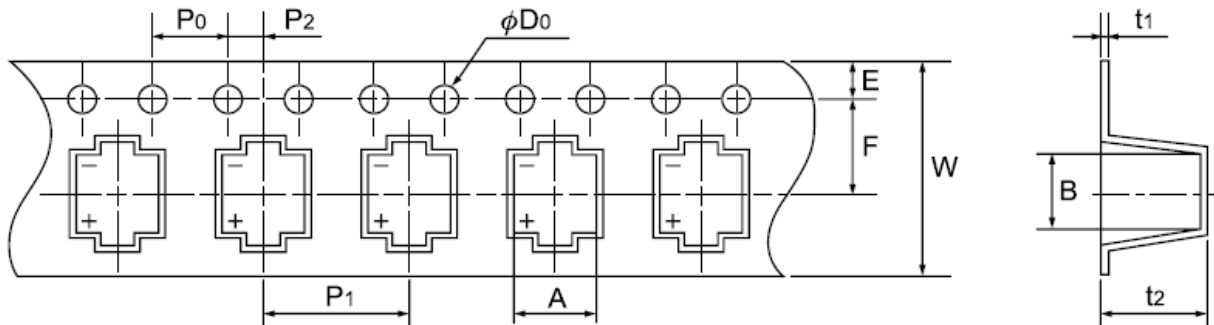
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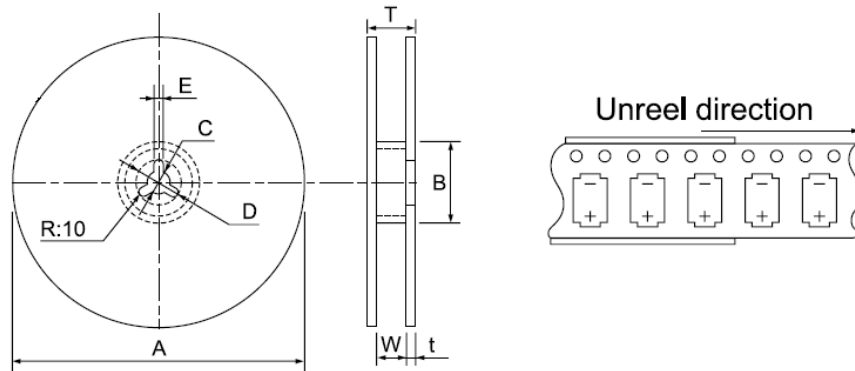
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TAPING



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	ØD ₀ ±0.1	t ₁ ±0.1	E ±0.1	t ₂ ±0.2
Ø4x5.4	12.0	4.7	4.7	4.0	8.0	2.0	5.5	1.5	0.4	1.75	5.7
Ø5x5.4	12.0	5.7	5.7	4.0	12.0	2.0	5.5	1.5	0.4	1.75	5.7
Ø6.3x5.4	16.0	7.0	7.0	4.0	12.0	2.0	7.5	1.5	0.4	1.75	5.7
Ø4x5.8	12.0	4.7	4.7	4.0	8.0	2.0	5.5	1.5	0.4	1.75	6.3
Ø5x5.8	12.0	5.7	5.7	4.0	12.0	2.0	5.5	1.5	0.4	1.75	6.4
Ø6.3x5.8	16.0	7.0	7.0	4.0	12.0	2.0	7.5	1.5	0.4	1.75	6.4
Ø6.3x7.7	16.0	7.0	7.0	4.0	12.0	2.0	7.5	1.5	0.4	1.75	8.2
Ø8x6.2	16.0	8.7	8.7	4.0	12.0	2.0	7.5	1.5	0.4	1.75	6.8
Ø8x10.2	24.0	8.7	8.7	4.0	16.0	2.0	11.5	1.5	0.4	1.75	11.0
Ø10x10.2	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
Ø4 Ø5	380	50	13	21	2.0	14.0	20.0	3.0
Ø6.3	380	50	13	21	2.0	18.0	24.0	3.0
Ø8x6.2	380	50	13	21	2.0	18.0	24.0	3.0
Ø8x10.2	380	50	13	21	2.0	26.0	32.0	3.0
Ø10x10.2	380	50	13	21	2.0	26.0	32.0	3.0

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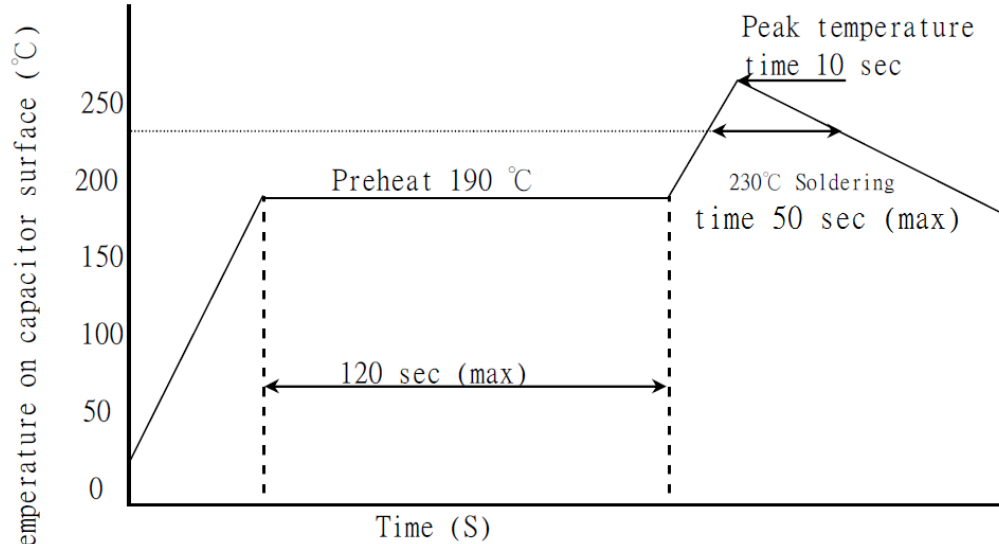


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PERMISSIBLE REFLOW CONDITION

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