

# Aluminum Electrolytic Capacitors Surface Mount Type

SRED Series

MERITEK

## FEATURE

- Low Impedance, long life Series
- Applications: TV Audio/Video Meida, Monitor/Computer, Battery charger, DC/DC converter, SMPS, Noise filter
- Load life: 105°C



Diameter (mm)	Load Life (Hours)
5.0 ~ 6.3	2000
8.0 ~ 10.0	5000



## SPECIFICATIONS

Item	Characteristic							
Operating Temperature	-55°C ~ 105°C							
Rated Working Voltage	6.3VDC ~ 50VDC							
Nominal Capacitance	4.7μF ~ 1500μF, ±20% (at 20°C, 120HZ)							
Leakage Current	$I_L \leq 0.01CV$ or 3 μA whichever is greater after 2 minutes at 20°C I <sub>L</sub> : Leakage Current (μA) C: Nominal Capacitance (μF) V: Rated Voltage (V)							
Ripple Current Coefficient, Frequency	Frequency (Hz)	120	1K	10K	100K	--	--	
	Coefficient	0.70	0.80	0.90	1.00	--	--	
Dissipation Factor at 20°C, 120Hz	Working Voltage (V)	6.3	10	16	25	35	50	
	Dissipation Factor	0.28	0.24	0.20	0.16	0.13	0.12	
Low Temperature Stability, Impedance Ratio at 120Hz	Working Voltage (V)	6.3	10	16	25	35	50	
	Z-25°C / Z+20°C	3	3	2	2	2	2	
	Z-40°C / Z+20°C	7	7	5	3	3	3	
Load Life	Capacitance	≤ ±30% of initial value					Apply Working Voltage for Rated Load Life / Temperature Stabilized at +20°C.	
	Dissipation Factor	≤ 300% of initial value						
	Leakage Current	≤ Initial specified value						
Shelf Life	Capacitance	≤ ±30% of initial value					After storage condition without voltage applied for 1000 hours at Rated Temperature, Stabilizing for 1 to 2 hours.	
	Dissipation Factor	≤ 300% of initial value						
	Leakage Current	≤ Initial specified value						
Resistance to Soldering Heat	Capacitance	≤ ±20% of initial value					For other procedures than those specified, Soldering iron method: Temperature: 260±5°C. Application time of soldering iron: 10 sec	
	Dissipation Factor	≤ specified value						
	Leakage Current	≤ specified value						

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## STANDARD RATING

Rated Voltage	Cap	Case Size	Tan $\delta$	Ripple Current	Impedance	
(VDC)	( $\mu$ F)	(mm)	(%)	(mA/rms)	( $\Omega$ )	
6.3	33	5x5.4	0.28	150	0.76	
	47	5x5.4	0.28	150	0.76	
	100	6.3x5.4	0.28	230	0.44	
	150	6.3x5.4	0.28	230	0.44	
	220	6.3x5.4	0.28	230	0.44	
	330	6.3x7.7	0.28	280	0.34	
	470	8x10.2	0.28	450	0.17	
	1000	8x10.2	0.28	450	0.17	
	1500	10x10.2	0.28	670	0.09	
	10	33	5x5.4	0.24	150	0.76
47		6.3x5.4	0.24	230	0.44	
100		6.3x5.4	0.24	230	0.44	
150		6.3x5.4	0.24	230	0.44	
220		6.3x7.7	0.24	280	0.34	
330		8x10.2	0.24	450	0.17	
470		8x10.2	0.24	450	0.17	
1000		10x10.2	0.24	670	0.09	
16		22	5x5.4	0.20	150	1.00
		33	6.3x5.4	0.20	230	0.44
	47	6.3x5.4	0.20	230	0.44	
	100	6.3x5.4	0.20	230	0.44	
	150	6.3x7.7	0.20	280	0.34	
	220	6.3x7.7	0.20	280	0.34	
	330	8x10.2	0.20	450	0.17	
	470	8x10.2	0.20	450	0.17	

Rated Voltage	Cap	Case Size	Tan $\delta$	Ripple Current	Impedance	
(VDC)	( $\mu$ F)	(mm)	(%)	(mA/rms)	( $\Omega$ )	
25	22	5x5.4	0.16	150	1.00	
	33	6.3x5.4	0.16	230	0.44	
	47	6.3x5.4	0.16	230	0.44	
	100	6.3x7.7	0.16	280	0.34	
	150	8x10.2	0.16	450	0.17	
	220	8x10.2	0.16	450	0.17	
	330	8x10.2	0.16	450	0.17	
	470	10x10.2	0.16	670	0.09	
	35	10	5x5.4	0.13	150	0.76
		22	5x5.4	0.13	150	0.76
33		6.3x5.4	0.13	230	0.44	
47		6.3x5.4	0.13	230	0.44	
100		8x10.2	0.13	450	0.17	
150		8x10.2	0.13	450	0.17	
220		8x10.2	0.13	450	0.17	
330		10x10.2	0.13	670	0.09	
50		4.7	5x5.4	0.12	85	1.52
		10	6.3x5.4	0.12	165	0.88
	22	6.3x5.4	0.12	165	0.88	
	33	6.3x7.7	0.12	185	0.68	
	47	6.3x7.7	0.12	185	0.68	
	100	8x10.2	0.12	300	0.34	
	150	10x10.2	0.12	670	0.18	
	220	10x10.2	0.12	670	0.18	

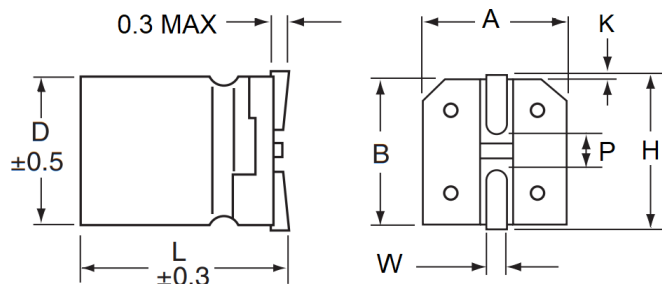
Note: Ripple Current measured at 100KHz, 105°C, Impedance at 20°C 100KHz

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## DIMENSION



Unit :mm

D	L	A ±0.2	B ±0.2	H Max	W	P ±0.2	K
4.0 (D)	5.4	4.3	5.0	5.5	0.65±0.1	1.0	0.35+0.15/-0.2
5.0 (E)	5.4	5.3	6.0	6.5	0.65±0.1	1.5	0.35+0.15/-0.2
6.3 (F)	5.4	6.6	7.3	7.8	0.65±0.1	2.1	0.35+0.15/-0.2
6.3 (F)	7.7	6.6	7.3	7.8	0.65±0.1	2.1	0.35+0.15/-0.2
8.0 (H)	10.2	8.3	9.1	10.0	0.90±0.2	3.1	0.70±0.20
10.0 (J)	10.2	10.3	11.1	12.0	0.90±0.2	4.6	0.70±0.20

## PART NUMBERING SYSTEM

SRED   1H   221M   J102  
(1)   (2)   (3)   (4)

No	Item	Code	Description	
(1)	Meritek Series	SRED	Aluminum Electrolytic Capacitors, SMD type, 2000 ~ 5000 Hrs 105°C	
(2)	Rated Voltage	1H	50VDC	DC Voltage Code, 0J to 1H
(3)	Capacitance	221M	220µF ±20% (M)	First two digit: significant, Third: Multiplier
(4)	Size Code	J102	10x10.2mm	DxL (mm)

Voltage	4	6.3	10	16	25	35	50	63	100	160	200	250	350	400	450	500
Code	0G	0J	1A	1C	1E	1V	1H	1J	2A	2C	2D	2E	2V	2G	2W	2H

Diameter	4	5	6.3	8	10	12.5	14.5	16	18	20	22	25
Code	D	E	F	H	J	K	U	L	M	N	P	Q

## LEGACY PART NUMBERING SYSTEM

SRED   50V   221M   J102  
(1)   (2)   (3)   (4)

No	(1)	(2)	(3)	(4)
Item	Meritek Series	Rated Voltage	Rated Capacitance	Size Code

\*Specifications subject to change without notice.