

# Surface Mount Aluminum Electrolytic Capacitors



**SRB Series**  
(General Purpose)

**MERITEK**

85°C, 1,000 to 2,000 Hours



## SPECIFICATIONS

ITEM	CHARACTERISTICS																								
Operating Temperature Range	-40 to +85°C																								
Rated Voltage	4 to 50VDC																								
Capacitance Tolerance	±20%(M) at 20°C, 120Hz																								
Leakage Current	$I \leq 0.01CV$ or $3\mu A$ , whichever is greater (at 20°C, after 2 minutes.) Where <b>I</b> : Leakage current( $\mu A$ ), <b>C</b> : Nominal capacitance( $\mu F$ ), <b>V</b> : Rated voltage (VDC)																								
Dissipation Factor (Tan $\delta$ )	Refer to table 1.																								
Low Temperature Characteristics Max. impedance ratio at 120Hz, 20°C	<table border="1"> <thead> <tr> <th>RATED VOLTAGE TEMP</th> <th>4V</th> <th>6.3V</th> <th>10V</th> <th>16V</th> <th>25V</th> <th>35V</th> <th>50V</th> </tr> </thead> <tbody> <tr> <td>At -25°C</td> <td>7</td> <td>4</td> <td>3</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> </tr> <tr> <td>At -40°C</td> <td>15</td> <td>10</td> <td>8</td> <td>6</td> <td>4</td> <td>3</td> <td>3</td> </tr> </tbody> </table>	RATED VOLTAGE TEMP	4V	6.3V	10V	16V	25V	35V	50V	At -25°C	7	4	3	2	2	2	2	At -40°C	15	10	8	6	4	3	3
RATED VOLTAGE TEMP	4V	6.3V	10V	16V	25V	35V	50V																		
At -25°C	7	4	3	2	2	2	2																		
At -40°C	15	10	8	6	4	3	3																		
Load Life	<p>The following specifications shall be satisfied when the capacitors are restored to 20°C after the rated voltage applied with the following conditions</p> <table border="1"> <thead> <tr> <th></th> <th><math>\phi 3</math></th> <th><math>\phi 4 \sim \phi 10</math></th> </tr> </thead> <tbody> <tr> <td>Rated Voltage</td> <td>85°C, 1,000 hours</td> <td>85°C, 2,000 hours</td> </tr> <tr> <td>Capacitance change</td> <td><math>\leq \pm 20\%</math> of the initial value</td> <td><math>\leq \pm 15\%</math> of the initial value</td> </tr> <tr> <td>DF(tan <math>\delta</math>)</td> <td><math>\leq 200\%</math> of the initial specified value</td> <td><math>\leq 150\%</math> of the initial specified value</td> </tr> </tbody> </table> <p>Leakage current <math>\leq</math> The initial specified value</p>		$\phi 3$	$\phi 4 \sim \phi 10$	Rated Voltage	85°C, 1,000 hours	85°C, 2,000 hours	Capacitance change	$\leq \pm 20\%$ of the initial value	$\leq \pm 15\%$ of the initial value	DF(tan $\delta$ )	$\leq 200\%$ of the initial specified value	$\leq 150\%$ of the initial specified value												
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Shelf Life	<p>The following specifications shall be satisfied when the capacitors are restored to 20°C after exposing them with the following conditions.</p> <table border="1"> <tbody> <tr> <td>Rated Voltage</td> <td>85°C, 500 hours</td> </tr> <tr> <td>Capacitance change</td> <td><math>\leq \pm 15\%</math> of the initial value</td> </tr> <tr> <td>DF(tan <math>\delta</math>)</td> <td><math>\leq 150\%</math> of the initial specified value</td> </tr> </tbody> </table> <p>Leakage current <math>\leq</math> The initial specified value</p>	Rated Voltage	85°C, 500 hours	Capacitance change	$\leq \pm 15\%$ of the initial value	DF(tan $\delta$ )	$\leq 150\%$ of the initial specified value																		
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Others	Satisfies characteristic W of KS C 6421																								

**TABLE 1. RATINGS OF DISSIPATION FACTOR (TAN  $\delta$ )**

VDC Item $\mu F$	4		6.3		10		16		25		35		50			
	CASE CODE	TAN $\delta$	CASE CODE	TAN $\delta$	CASE CODE	TAN $\delta$	CASE CODE	TAN $\delta$	CASE CODE	TAN $\delta$	CASE CODE	TAN $\delta$	CASE CODE	TAN $\delta$		
0.1													B55	D55	0.15	0.15
0.15													B55	D55	0.15	0.15
0.22													B55	D55	0.15	0.15
0.33													B55	D55	0.15	0.15
0.47													B55	D55	0.15	0.15
0.68													B55	D55	0.15	0.15
1													B55	D55	0.15	0.15
1.5													B55	D55	0.15	0.15
2.2											B55	0.15	B55	D55	0.15	0.15
3.3											B55	0.15		D55		0.15
4.7									B555	0.16	D55	0.15	E55			0.15
6.8								B55	0.24	D55	0.15	E55	0.15	E55		0.15
10					B55	0.28	B55	D55	0.24	0.22	E55	0.15	E55	0.15	F55	0.15
15					D55	0.26	E55		0.20	F55	0.15	F55	0.15	F60		0.15
22	B55	0.46	B55	D55	0.41	0.32	E55	0.28	E55	0.20	F55	0.15	F55	0.15	F60	0.15
33	D55	0.46	D55		E55	0.26	F55	0.26	F55	0.21	F55	0.15	F60	0.15	H63	0.15
47	D55	0.60	E55		F55	0.23	F55	0.23	F55	0.21	F60	0.15	H63	0.15	H10	0.15
68	E55	0.42			F55	0.29	F60	0.23	F60	0.23	H63	0.15	H10	0.15	J10	0.15
100	E55	0.62	F55		F60	0.23	F60	H63	0.26	0.26	H63	0.15	J10	0.15	J10	0.15
220	F55	0.80	F60	H63	0.4	0.4	H63	0.30	H10	0.26	J10	0.15	J10	0.15		
330			H63						H10	0.26			J10	0.15		
470			H10						J10	0.26						
1000			J10													

# SURFACE MOUNT ALUMINUM ELECTROLYTIC CAPACITORS

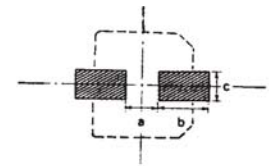
**SRB Series**  
(General Purpose)

**MERITEK**

## PART NUMBERING SYSTEM

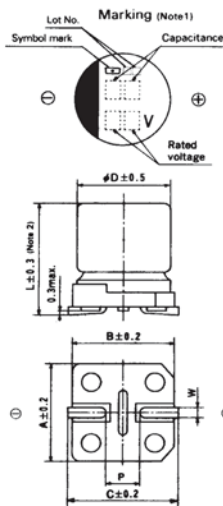
Meritek Series	<b>SRB</b>							<b>16V</b>	<b>221</b>	<b>M</b>	<b>D55</b>
Rated Voltage	CODE	4V	6.3V	10V	16V	25V	35V	50V			
Capacitance	CODE	R1	R47	2R0	4R7	100	101				
	μF	0.1	0.47	2	4.7	10	100				
Capacitance Tolerance (20%)											
Case Size											

**SOLDER PAD**  
On PC Board, recommended



Solder pad.

## DIMENSIONS



Note 1 : For case size 8x10(H10) and 10X10(J10), the pvc sleeve with marking covers the side of the body.

Note 2 : L+0.5 for 8x10(H63), 8x10(H10), 10X10(J10).

Case code	φ D	L	A	B	C	W	P	a	b	c
B55	φ 3	5.2	3.3	3.3	3.7	0.45-0.75	0.8	0.8	2.2	1.6
D55	φ 4	5.2	4.3	4.3	5.1	0.5-0.8	1.0	1.0	2.6	1.6
E55	φ 5	5.2	5.3	5.4	5.9	0.5-0.8	1.4	1.4	3.0	1.6
F55	φ 6.3	5.2	6.6	6.6	7.2	0.5-0.8	1.9	1.9	3.5	1.6
F60	φ 6.3	5.7	6.6	6.6	7.2	0.5-0.8	1.9	1.9	3.5	1.6
H63	φ 8	6.3	8.3	8.3	9.0	0.5-0.8	2.3	2.3	4.5	1.6
H10	φ 8	10	8.3	8.3	9.0	0.7-1.1	3.1	3.1	4.2	2.2
J10	φ 10	10	10	10.3	11.0	0.7-1.1	4.5	4.5	4.4	2.2

Ripple Current (mA rms/85°C, 120 Hz)  
C.C (case code) R.C (Ripple current)

## RATING OF SRB SERIES

VDC	4		6.3		10		16		25		35		50						
Item	C.C	R.C	C.C	R.P	C.C	R.C	C.C	R.C	C.C	R.C	C.C	R.C	C.C	R.C					
0.1													B55	D55	1.1	1.3			
0.15													B55	D55	2.0	2.0			
0.22													B55	D55	2.0	2.9			
0.33													B55	D55	3.0	3.5			
0.47													B55	D55	3.8	4.2			
0.68													B55	D55	4.6	5.1			
1													B55	D55	5.6	6.2			
1.5													B55	D55	6.9	7.5			
2.2											B55	7.7	B55	D55	8.3	10			
3.3											B55	9.4	D55		14				
4.7									B55	10.5	D55	15	E55		19				
6.8							B55	11.6		D55	16	E55	20	F55		24			
10					B55	12.8	B55	D55	14	17	E55	25	E55	25	F55		29		
15					D55	20	E55		26		F55	33	F55	33	F60		32		
22	B55	14	B55	D55	17.5	23	E55	32	E55		32	F55	40	F55	40	F60		45	
33	D55	23	D55		35		E55	35	F55		45	F55	45	F60	55	H63		95	
47	D55	27	E55		38		F55	50	F55		50	F60	65	H63	105	H10		140	
68	E55	38					F55	54	F60		78	H63	115	H10	157	J10		170	
100	E55	46	F55		60		F60	70	F60	H63	80	145	H63	145	J10	175	J10		195
220	F55	74	F60	H63	80	175	H63	175	H10		215		J10	305	J10	260			
330			H63		190				H10		270				J10	360			
470			H10		265				J10		330								
1000			J10		400														