

# Aluminum Electrolytic Capacitors Surface Mount Type Non-Polar

SHB series

**MERITEK**

## FEATURE

- Non-polar Series
- Applications: Non-polarized, Low profile vertical chip
- Load life: 105°C



Diameter (mm)	Load Life (Hours)
4.0 ~ 6.3	2000



## SPECIFICATIONS

Item	Characteristic							
Operating Temperature	-55°C ~ 105°C							
Rated Working Voltage	6.3VDC ~ 50VDC							
Nominal Capacitance	1 μF ~ 47 μF, ±20% (at 20°C, 120HZ)							
Leakage Current	$I_L \leq 0.05CV$ or 10 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)	60	120	1K	10K	--	--	
	Coefficient	0.85	1.00	1.10	1.20	--	--	
Dissipation Factor at 20°C, 120Hz	Working Voltage (V)	6.3	10	16	25	35	50	
	Dissipation Factor	0.26	0.22	0.20	0.20	0.20	0.18	
Low Temperature Stability, Impedance Ratio at 120Hz	Working Voltage (V)	6.3	10	25	35	50	--	
	Z-25°C / Z+20°C	4	3	2	2	2	--	
	Z-40°C / Z+20°C	8	6	4	3	3	--	
Load Life	Capacitance	≤ ±20% of initial value					Apply Working Voltage for Rated Load Life / Temperature Stabilized at +20°C.	
	Dissipation Factor	≤ 200% of initial value						
	Leakage Current	≤ Initial specified value						
Shelf Life	Capacitance	≤ ±20% of initial value					After storage condition without voltage applied for 1000 hours at Rated Temperature, Stabilizing for 1 to 2 hours.	
	Dissipation Factor	≤ 200% 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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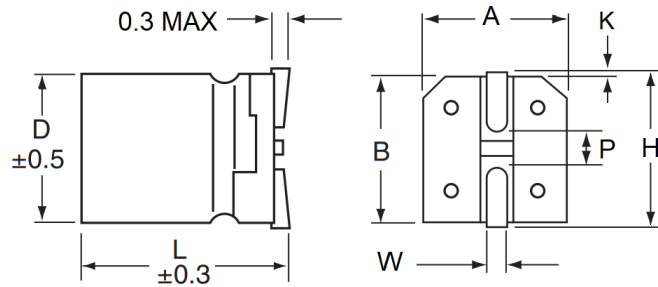
## SPECIFICATIONS

Rated Voltage (VDC)	Rated Capacitance		Case Size (mm)	Tan $\delta$ (%)	Ripple Current (mA/rms)
	( $\mu$ F)	Code			
6.3	22	220	5x5.4	0.26	29
	33	330	6.3x5.4	0.26	43
	47	470	6.3x5.4	0.26	46
10	10	100	4x5.4	0.22	25
	22	220	6.3x5.4	0.22	39
	33	330	6.3x5.4	0.22	43
16	4.7	4R7	4x5.4	0.20	20
	10	100	5x5.4	0.20	25
	22	220	6.3x5.4	0.20	39

Note: Ripple Current measured at 120Hz, 105°C

Rated Voltage (VDC)	Rated Capacitance		Case Size (mm)	Tan $\delta$ (%)	Ripple Current (mA/rms)
	( $\mu$ F)	Code			
25	3.3	3R3	4x5.4	0.20	12
	4.7	4R7	5x5.4	0.20	21
	10	100	6.3x5.4	0.20	28
35	2.2	2R2	4x5.4	0.20	12
	3.3	3R3	5x5.4	0.20	21
	4.7	4R7	5x5.4	0.20	22
	10	100	6.3x5.4	0.20	30
50	1.0	1R0	4x5.4	0.18	10
	2.2	2R2	5x5.4	0.18	16
	3.3	3R3	5x5.4	0.18	21
	4.7	4R7	6.3x5.4	0.18	31

## DIMENSION



Unit :mm

D	L	A $\pm 0.2$	B Max	H Max	W	P $\pm 0.2$	K
4.0 (D)	5.4	4.3	5.0	5.5	0.65 $\pm$ 0.1	1.0	0.35+0.15/-0.2
5.0 (E)	5.4	5.3	6.0	6.5	0.65 $\pm$ 0.1	1.5	0.35+0.15/-0.2
6.3 (F)	5.4	6.6	7.3	7.8	0.65 $\pm$ 0.1	2.1	0.35+0.15/-0.2

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## PART NUMBERING SYSTEM

SHB   1H   4R7M   F054  
(1)   (2)   (3)   (4)

No	Item	Code	Description	
(1)	Meritek Series	SHB	Aluminum Electrolytic Capacitors, SMD type, Non-Polar ,2000 Hrs 105°C	
(2)	Rated Voltage	1H	50VDC	DC Voltage Code, 0J to 1H
(3)	Capacitance	4R7M	4.7μF ±20% (M)	First two digits: significant, Third: Multiplier
(4)	Size Code	F054	6.3x5.4mm	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

SHB   50V   4R7M   F054  
(1)   (2)   (3)   (4)

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

\*Specifications subject to change without notice.