

Aluminum Electrolytic Capacitors Surface Mount AEC-Q200

SHT-A series

MERITEK

FEATURE

- General Purpose Series
- Applications: Monitor/Computer, Home Appliance, Communication, Industrial, Automobile, Meter.
- AEC-Q200 Compliant
- Load Life at 105°C



Diameter (mm)	Load Life (Hours)
4.0 ~ 10.0	1000



SPECIFICATIONS

Item	Characteristic										
Operating Temperature	-55 ~ 105°C										
Rated Working Voltage	4 ~ 100VDC										
Nominal Capacitance	1 ~ 1500µF, ±20% (at 20°C, 120HZ)										
Leakage Current	$I_L \leq 0.01CV$ or $3\mu A$ whichever is greater after 2 minutes at 20°C I _L : 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	1.15	1.25	--	--	--	--	--	
Low Temperature Stability, Impedance Ratio at 120Hz	Working Voltage (V)	4	6.3	10	16	25	35	50	63	100	
	Z-25°C / Z+20°C	7	4	3	2	2	2	2	2	2	
	Z-40°C / Z+20°C	15	8	6	4	4	3	3	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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STANDARD RATING

Rated Voltage	Rated Capacitance		Case Size	Tan δ	Ripple Current
	(V _{DC})	(μ F) Code			
4	22	220	4x5.4	0.35	20
	33	33	4x5.4	0.35	26
	47	470	4x5.4	0.35	34
	100	101	5x5.4	0.35	61
	220	221	6.3x5.4	0.35	82
6.3	22	220	4x5.4	0.30	29
	33	330	4x5.4	0.30	43
	47	470	4x5.4	0.30	43
	47	470	5x5.4	0.30	46
	100	101	5x5.4	0.30	47
	100	101	6.3x5.4	0.30	71
	220	221	6.3x5.4	0.30	74
	220	221	6.3x7.7	0.30	120
	330	331	6.3x7.7	0.30	175
	330	331	8X10.2	0.35	230
	470	471	8x10.2	0.35	300
	1000	102	8x10.2	0.35	300
	1000	102	10x10.2	0.35	400
	1500	152	10x10.2	0.35	480
10	10	100	4x5.4	0.22	24
	22	220	4x5.4	0.22	36
	33	330	4x5.4	0.22	45
	33	330	5x5.4	0.22	46
	47	470	5x5.4	0.22	46
	47	470	6.3X5.4	0.22	70
	100	101	6.3x5.4	0.22	71
	100	101	6.3X7.7	0.22	110
	150	151	6.3X5.4	0.22	86
	220	221	6.3x7.7	0.22	115
	220	221	8X10.2	0.26	160
	330	331	8x10.2	0.26	200
	470	471	8x10.2	0.26	230
	470	471	10x10.2	0.26	270
	1000	102	10x10.2	0.26	390
	16	4.7	4R7	4x5.4	0.16
10		100	4x5.4	0.16	28
22		220	4X5.4	0.16	28
22		220	5x5.4	0.16	39
33		330	5x5.4	0.16	39
33		330	6.3x5.4	0.16	65
47		470	5x5.4	0.16	39
47		470	6.3x5.4	0.16	70
100		101	6.3x5.4	0.16	80
100		101	6.3x7.7	0.16	130

Rated Voltage	Rated Capacitance		Case Size	Tan δ	Ripple Current	
	(V _{DC})	(μ F) Code				(mm)
16	220	221	6.3x7.7	0.16	105	
	220	221	8x10.2	0.20	180	
	330	331	8x10.2	0.20	220	
	330	331	10x10.2	0.20	260	
	470	471	8x10.2	0.20	270	
	470	471	10x10.2	0.20	340	
	680	681	10x10.2	0.20	380	
	25	4.7	4R7	4x5.4	0.14	22
10		100	4x5.4	0.14	22	
10		100	5x5.4	0.14	28	
22		220	5x5.4	0.14	35	
22		220	6.3x5.4	0.14	55	
22		220	5x5.4	0.14	45	
33		330	6.3x5.4	0.14	65	
47		470	6.3x5.4	0.14	71	
47		470	6.3x7.7	0.14	91	
100		101	6.3x7.7	0.14	95	
100		101	8x10.2	0.16	140	
220		221	8x10.2	0.16	200	
220		221	10x10.2	0.16	273	
330		331	8x10.2	0.16	250	
330		331	10x10.2	0.16	340	
470		471	10x10.2	0.16	360	
35		2.2	2R2	4x5.4	0.12	15
		3.3	3R3	4x5.4	0.12	18
	4.7	4R7	4x5.4	0.12	22	
	10	100	4x5.4	0.12	25	
	10	100	5x5.4	0.12	30	
	22	220	5x5.4	0.12	35	
	22	220	6.3x5.4	0.12	60	
	33	330	6.3x5.4	0.12	60	
	33	330	6.3x7.7	0.12	84	
	47	470	6.3X5.4	0.12	60	
	47	470	6.3x7.7	0.12	84	
	47	470	8X10.2	0.14	100	
	100	101	6.3x7.7	0.14	105	
	100	101	8X10.2	0.14	150	
	220	221	8x10.2	0.14	220	
	220	221	10x10.2	0.14	250	
	330	331	10x10.2	0.14	300	

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

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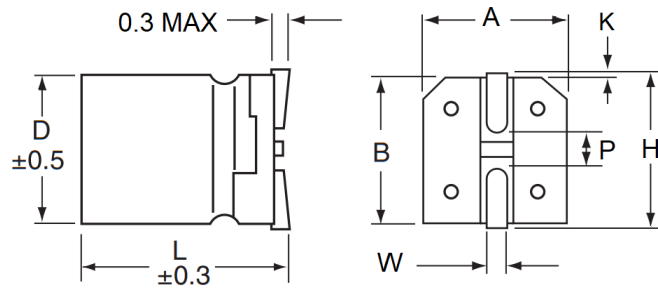
STANDARD RATING

Rated Voltage (V _{DC})	Rated Capacitance		Case Size (mm)	Tan δ (%)	Ripple Current (mA/rms)
	(μF)	Code			
50	1.0	1R0	4x5.4	0.12	10
	2.2	2R2	4x5.4	0.12	16
	3.3	3R3	4x5.4	0.12	16
	4.7	4R7	5x5.4	0.12	23
	10	100	6.3x5.4	0.12	35
	22	220	6.3x7.7	0.12	65
	33	330	6.3x7.7	0.12	70
	33	330	8x10.2	0.12	91
	47	470	6.3x7.7	0.12	75
	47	470	8x10.2	0.12	95
	100	101	8x10.2	0.12	110
	100	101	10x10.2	0.12	145
	220	221	10x10.2	0.12	210

Rated Voltage (V _{DC})	Rated Capacitance		Case Size (mm)	Tan δ (%)	Ripple Current (mA/rms)
	(μF)	Code			
63	4.7	4R7	6.3x5.4	0.18	20
	10	100	6.3x5.4	0.18	20
	22	220	8x10.2	0.18	30
	33	330	8x10.2	0.18	30
	47	470	8x10.2	0.18	45
	100	101	10x10.2	0.18	60
	100	3.3	3R3	8x10.2	0.18
4.7		4R7	8x10.2	0.18	50
10		100	8x10.2	0.18	55
22		220	10x10.2	0.18	60
33		330	10x10.2	0.18	65
47		470	10x10.2	0.18	65

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

DIMENSION



Unit: mm

D	L	A ±0.2	B Max	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

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PART NUMBERING SYSTEM

SHT **2A** **470** **A** **J102**
 (1) (2) (3) (4) (5)

No	Item	Code	Description	
(1)	Product Code	SHT	Aluminum Electrolytic Capacitors, SMD type, 1000 Hrs 105°C	
(2)	Rated Voltage	2A	100VDC	DC Voltage Code
(3)	Capacitance	470	47µF ±20% (M)	First two digits: significant, Third: Multiplier
(4)	Series Code	A	AEC-Q200 Compliant Series	
(5)	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

*Specifications subject to change without notice.