

A1 series

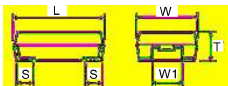
- Endurance: 2,000 hours at 105°C
- Low ESR
- Recommended Applications: System Board, Display Card, Small Charger and intelligent TV
- **RoHS Compliant and lead-free**



SPECIFICATIONS

Items	Characteristics	
Category Temperature Range	-55~+105°C	
Rated Working Voltage Range	2~25 Vdc	
Nominal Capacitance Range	6.8~470μF	
Capacitance Tolerance	±20%(M) (at 20°C, 120Hz)	
DC Leakage Current	I≤0.1CV W.V.:2V~25V Where, I: Leakage current (μA), C:Nominal capacitance (μF), V: Rated voltage (V) (at 20°C after 2 minutes)	
Dissipation Factor (tanδ)	Rated Voltage(Vdc)	2 2.5 4 6.3 7.5 10 12.5 16 25
	tanδ (max.)	0.06 0.10 (at 20°C, 120Hz)
ESR(100k~300kHz,20°C)	Value in characteristics table	
Temperature Characteristic (Impedance Ratio at 100kHz)	Z(+105°C)/Z(+20°C)≤1.25 Z(-55°C)/Z(+20°C)≤1.25	
Endurance	After applying rated voltage with rated ripple current for 2,000 hours at 105°C, the capacitors shall meet the following requirements.	
	Appearance	No significant damage
	Capacitance Change	≤±20% of the initial value
	D.F. (tanδ)	≤150% of the initial specified value
	Leakage Current	≤The initial specified value
Humidity Test	After subjecting to 90%~95% RH for 500 hours at 60°C(no voltage), the capacitors shall meet the requirement as Endurance.	
	Rated Voltage(Vdc)	2~2.5 4 6.3~7.5 8~16 25
	Capacitance Change	+70,-20% +60,-20% +50,-20% +40,-20%
	D.F. (tanδ)	≤200% of the initial specified value
	Leakage Current	≤The initial specified value
Surge Test	After subjecting to 1,000 cycles each consisting of charge with the surge voltage specified at normal temperature for 30 seconds through a protective resistor and discharge for 5 minutes 30 seconds, the capacitors shall meet the following requirements.	
	Appearance	No significant damage
	Capacitance Change	≤±20% of the initial value
	D.F. (tanδ)	≤150% of the initial specified value
	Leakage Current	≤The initial specified value

DIMENSIONS[mm]

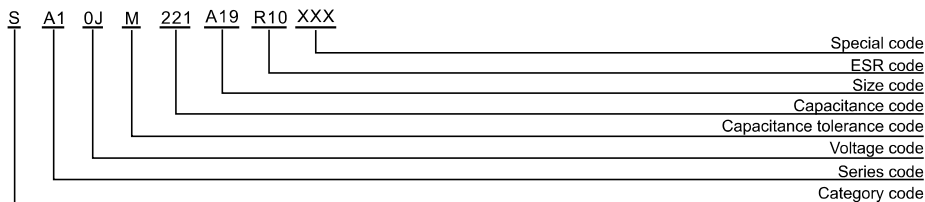


Case Size	L±0.3(mm)	W±0.2(mm)	T±0.1(mm)	W1±0.2(mm)	S±0.2(mm)
7.3x4.3x1.9	7.3	4.3	1.9	2.4	1.3

MARKING



PART NUMBERING SYSTEM



A1 series

■ STANDARD RATINGS

VDC (SV)	Cap (μF)	Size (LxWxT mm)	ESR (mΩ, 20°C, 100kHz) (max.)	Rated ripple current (100kHz, 20~105°C)(mA rms)	Leakage Current (20°C) (μA max.)	Part Number
2 (2.3)	100	7.3x4.3x1.9	16	2000	20.0	SA10BM101A19R16XXX
	150	7.3x4.3x1.9	9	3000	30.0	SA10BM151A19R09XXX
	220	7.3x4.3x1.9	9	3000	44.0	SA10BM221A19R09XXX
	270	7.3x4.3x1.9	9	3500	54.0	SA10BM271A19R09XXX
	330	7.3x4.3x1.9	7	3500	66.0	SA10BM331A19R07XXX
		7.3x4.3x1.9	9	3500	66.0	SA10BM331A19R09XXX
		7.3x4.3x1.9	4.5	3500	94.0	SA10BM471A19R04XXX
		7.3x4.3x1.9	6	3500	94.0	SA10BM471A19R06XXX
470	7.3x4.3x1.9	9	3500	94.0	SA10BM471A19R09XXX	
2.5 (2.5)	100	7.3x4.3x1.9	16	2000	25.0	SA10EM101A19R16XXX
	150	7.3x4.3x1.9	9	3000	37.5	SA10EM151A19R09XXX
	220	7.3x4.3x1.9	9	3000	55.0	SA10EM221A19R09XXX
	270	7.3x4.3x1.9	9	3500	67.5	SA10EM271A19R09XXX
	330	7.3x4.3x1.9	9	3500	82.5	SA10EM331A19R09XXX
4 (4.6)	68	7.3x4.3x1.9	20	1900	27.2	SA10GM680A19R20XXX
	82	7.3x4.3x1.9	16	2100	32.8	SA10GM820A19R16XXX
	150	7.3x4.3x1.9	16	2100	60.0	SA10GM151A19R16XXX
6.3 (7.2)	10	7.3x4.3x1.9	55	1000	6.3	SA10JM100A19R55XXX
	22	7.3x4.3x1.9	80	1000	13.9	SA10JM220A19R80XXX
	33	7.3x4.3x1.9	80	1800	20.8	SA10JM330A19R80XXX
	47	7.3x4.3x1.9	35	1800	29.6	SA10JM470A19R35XXX
	68	7.3x4.3x1.9	15	2000	42.8	SA10JM680A19R15XXX
	100	7.3x4.3x1.9	15	2000	63.0	SA10JM101A19R15XXX
		7.3x4.3x1.9	10	3000	94.5	SA10JM151A19R10XXX
		7.3x4.3x1.9	15	3000	94.5	SA10JM151A19R15XXX
220	7.3x4.3x1.9	10	3000	138.6	SA10JM221A19R10XXX	
	7.3x4.3x1.9	15	3000	138.6	SA10JM221A19R15XXX	
7.5 (8.6)	150	7.3x4.3x1.9	10	3000	112.5	SA10AM151A19R10XXX
	200	7.3x4.3x1.9	12	3000	150.0	SA10AM201A19R12XXX
10 (11.5)	10	7.3x4.3x1.9	55	1000	10.0	SA11AM100A19R55XXX
	22	7.3x4.3x1.9	120	1600	22	SA11AM220A19R22XXX
	33	7.3x4.3x1.9	25	1800	33	SA11AM330A19R25XXX
	100	7.3x4.3x1.9	15	2500	100.0	SA11AM101A19R15XXX
12.5 (14.4)	10	7.3x4.3x1.9	55	1000	12.5	SA11TM100A19R55XXX
	15	7.3x4.3x1.9	45	1000	18.8	SA11TM150A19R45XXX
	22	7.3x4.3x1.9	30	1600	27.5	SA11TM220A19R30XXX
	33	7.3x4.3x1.9	25	1800	41.3	SA11TM330A19R25XXX
	47	7.3x4.3x1.9	20	2000	58.8	SA11TM470A19R20XXX
	56	7.3x4.3x1.9	15	2000	70.0	SA11TM560A19R15XXX
	100	7.3x4.3x1.9	12	2500	125.0	SA11TM101A19R12XXX
16 (18.4)	6.8	7.3x4.3x1.9	70	1000	10.9	SA11CM68A19R70XXX
	10	7.3x4.3x1.9	60	1000	16.0	SA11CM100A19R60XXX
	15	7.3x4.3x1.9	40	1000	24.0	SA11CM150A19R40XXX
	47	7.3x4.3x1.9	55	1400	75.2	SA11CM470A19R55XXX
	68	7.3x4.3x1.9	30	1600	108.8	SA11CM680A19R30XXX
25 (28.8)	10	7.3x4.3x1.9	35	1000	25.0	SA11EM100A19R35XXX
	33	7.3x4.3x1.9	60	1400	82.5	SA11EM330A19R60XXX

※ Specifications may be subject to change without notice.

Conductive Polymer Multilayer Type