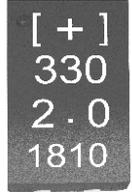


A1 series

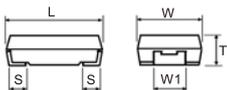
- Endurance: 2,000 hours at 105°C
- Low ESR
- Recommended Applications: System Board, Display Card, Small Charger and intelligent TV
- **RoHS Compliant and lead-free**



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]

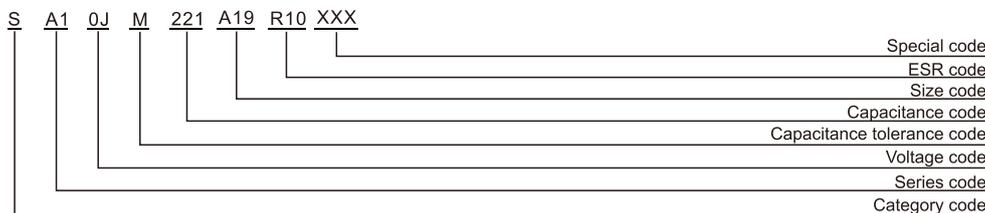


Case Size	L±0.3(mm)	W±0.2(mm)	T±0.1(mm)	W1±0.2(mm)	S±0.2(mm)
7.3x4.3x1.9	7.3	4.3	1.9	2.4	1.3

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	7.3×4.3×1.9	16	2000	20.0	SA10BM101A19R16XXX
	150	7.3×4.3×1.9	9	3000	30.0	SA10BM151A19R09XXX
	220	7.3×4.3×1.9	9	3000	44.0	SA10BM221A19R09XXX
	270	7.3×4.3×1.9	9	3500	54.0	SA10BM271A19R09XXX
	330	7.3×4.3×1.9	7	3500	66.0	SA10BM331A19R07XXX
		7.3×4.3×1.9	9	3500	66.0	SA10BM331A19R09XXX
	470	7.3×4.3×1.9	4.5	3500	94.0	SA10BM471A19R04XXX
		7.3×4.3×1.9	6	3500	94.0	SA10BM471A19R06XXX
7.3×4.3×1.9		9	3500	94.0	SA10BM471A19R09XXX	
2.5 (2.5)	100	7.3×4.3×1.9	16	2000	25.0	SA10EM101A19R16XXX
	150	7.3×4.3×1.9	9	3000	37.5	SA10EM151A19R09XXX
	220	7.3×4.3×1.9	9	3000	55.0	SA10EM221A19R09XXX
	270	7.3×4.3×1.9	9	3500	67.5	SA10EM271A19R09XXX
	330	7.3×4.3×1.9	9	3500	82.5	SA10EM331A19R09XXX
4 (4.6)	68	7.3×4.3×1.9	20	1900	27.2	SA10GM680A19R20XXX
	82	7.3×4.3×1.9	16	2100	32.8	SA10GM820A19R16XXX
	150	7.3×4.3×1.9	16	2100	60.0	SA10GM151A19R16XXX
6.3 (7.2)	10	7.3×4.3×1.9	55	1000	6.3	SA10JM100A19R55XXX
	22	7.3×4.3×1.9	80	1000	13.9	SA10JM220A19R80XXX
	33	7.3×4.3×1.9	80	1800	20.8	SA10JM330A19R80XXX
	47	7.3×4.3×1.9	35	1800	29.6	SA10JM470A19R35XXX
	68	7.3×4.3×1.9	15	2000	42.8	SA10JM680A19R15XXX
	100	7.3×4.3×1.9	15	2000	63.0	SA10JM101A19R15XXX
	150	7.3×4.3×1.9	10	3000	94.5	SA10JM151A19R10XXX
		7.3×4.3×1.9	15	3000	94.5	SA10JM151A19R15XXX
220	7.3×4.3×1.9	10	3000	138.6	SA10JM221A19R10XXX	
	7.3×4.3×1.9	15	3000	138.6	SA10JM221A19R15XXX	
7.5 (8.6)	150	7.3×4.3×1.9	10	3000	112.5	SA10AM151A19R10XXX
	200	7.3×4.3×1.9	12	3000	150.0	SA10AM201A19R12XXX
10 (11.5)	10	7.3×4.3×1.9	55	1000	10.0	SA11AM100A19R55XXX
	22	7.3×4.3×1.9	120	1600	22	SA11AM220A19RA2XXX
	33	7.3×4.3×1.9	25	1800	33	SA11AM330A19R25XXX
	100	7.3×4.3×1.9	15	2500	100.0	SA11AM101A19R15XXX
12.5 (14.4)	10	7.3×4.3×1.9	55	1000	12.5	SA11TM100A19R55XXX
	15	7.3×4.3×1.9	45	1000	18.8	SA11TM150A19R45XXX
	22	7.3×4.3×1.9	30	1600	27.5	SA11TM220A19R30XXX
	33	7.3×4.3×1.9	25	1800	41.3	SA11TM330A19R25XXX
	47	7.3×4.3×1.9	20	2000	58.8	SA11TM470A19R20XXX
	56	7.3×4.3×1.9	15	2000	70.0	SA11TM560A19R15XXX
16 (18.4)	100	7.3×4.3×1.9	12	2500	125.0	SA11TM101A19R12XXX
	6.8	7.3×4.3×1.9	70	1000	10.9	SA11CM6R8A19R70XXX
	10	7.3×4.3×1.9	60	1000	16.0	SA11CM100A19R60XXX
	15	7.3×4.3×1.9	40	1000	24.0	SA11CM150A19R40XXX
	47	7.3×4.3×1.9	55	1400	75.2	SA11CM470A19R55XXX
25 (28.8)	68	7.3×4.3×1.9	30	1600	108.8	SA11CM680A19R30XXX
	10	7.3×4.3×1.9	35	1000	25.0	SA11EM100A19R35XXX
33	7.3×4.3×1.9	60	1400	82.5	SA11EM330A19R60XXX	

※ Specifications may be subject to change without notice.