

A1 series

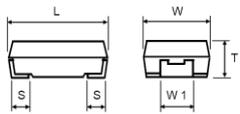
- Endurance: +105°C 2,000 hours
- Low ESR
- Recommended Applications: System Board, Display Card, Small Changer and intelligent TV
- RoHS Compliant and lead-free



SPECIFICATIONS

| Items | Characteristics | | | | | | | | | | | |
|-----------------------------|--|---------------------------------------|-----|------------|-----|------------|-----|------------|----|----|----|-----------------|
| Category Temperature Range | -55~+105°C | | | | | | | | | | | |
| Rated Working Voltage Range | 2~25 Vdc | | | | | | | | | | | |
| Nominal Capacitance Range | 4.7~470μF | | | | | | | | | | | |
| Capacitance Tolerance | ±20%(M) -35%~+10%(L) (20°C, 120Hz) | | | | | | | | | | | |
| DC Leakage Current | I≤0.1CV, W.V.:2V~25V(at 20°C after 2 minutes) | | | | | | | | | | | |
| | Where, I:leakage current (μA),C:Nominal capacitance (μF),V: Rated voltage (V) | | | | | | | | | | | |
| Dissipation Factor (tanδ) | Rated Voltage(Vdc) | 2 | 2.5 | 4 | 7.5 | 6.3 | 10 | 12.5 | 16 | 20 | 25 | (at 20°C,120Hz) |
| | tanδ (max.) | 0.06 | | | | | 0.1 | | | | | |
| ESR(100k~300kHz,20°C) | Value in characteristics table | | | | | | | | | | | |
| Endurance | After applying rated voltage for2,000 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 | ≤300% of 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 | ±10% of the initial value | | | | | | | | | | |
| | D.F. (tanδ) | ≤The initial specified value | | | | | | | | | | |
| | Leakage Current | ≤The initial specified value | | | | | | | | | | |

DIMENSIONS [mm]

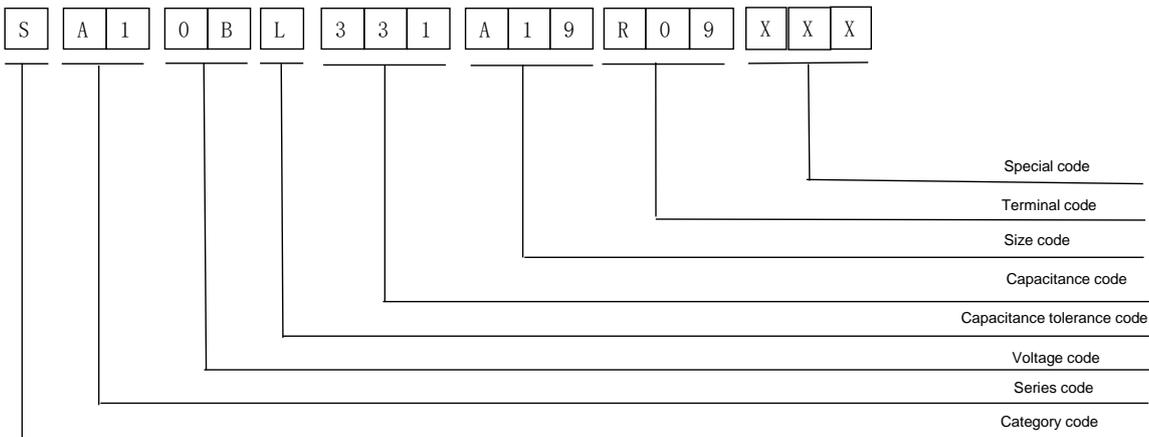


| Case Size | L±0.3(mm) | W±0.2(mm) | T±0.1(mm) | W1±0.2(mm) | S±0.2(mm) |
|-------------|-----------|-----------|-----------|------------|-----------|
| 7.3*4.3*1.9 | 7.3 | 4.3 | 1.9 | 2.4 | 1.3 |

MARKING



PART NUMBERING SYSTEM



STANDARD RATINGS

| WV (Vdc) | Cap (µF) | Size (LxWxT mm) | ESR (mΩ),20°C100kHz (max.) | Rated ripple current(mArms) 100kHz, | Leakage Current (uA max) 20°C | Part Number |
|----------|----------|-----------------|----------------------------|-------------------------------------|-------------------------------|--------------------|
| 2 | 68 | 7.3x4.3x1.9 | 40 | 1800 | 13.6 | SA10BM680A19R40XXX |
| 2 | 100 | 7.3x4.3x1.9 | 16 | 2000 | 20 | SA10BM101A19R16XXX |
| 2 | 150 | 7.3x4.3x1.9 | 9 | 3000 | 30 | SA10BM151A19R09XXX |
| 2 | 220 | 7.3x4.3x1.9 | 9 | 3000 | 44 | SA10BM221A19R09XXX |
| 2 | 220 | 7.3x4.3x1.9 | 9 | 3000 | 44 | SA10BL221A19R09XXX |
| 2 | 270 | 7.3x4.3x1.9 | 9 | 3500 | 54 | SA10BM271A19R09XXX |
| 2 | 300 | 7.3x4.3x1.9 | 9 | 3500 | 60 | SA10BM301A19R09XXX |
| 2 | 330 | 7.3x4.3x1.9 | 6 | 3500 | 66 | SA10BM331A19R06XXX |
| 2 | 330 | 7.3x4.3x1.9 | 7 | 3500 | 66 | SA10BM331A19R07XXX |
| 2 | 330 | 7.3x4.3x1.9 | 9 | 3500 | 66 | SA10BM331A19R09XXX |
| 2 | 330 | 7.3x4.3x1.9 | 7 | 3500 | 66 | SA10BL331A19R07XXX |
| 2 | 330 | 7.3x4.3x1.9 | 9 | 3500 | 198 | SA10BL331A19R0935X |
| 2 | 330 | 7.3x4.3x1.9 | 9 | 5400 | 66 | SA10BL331A19R0954X |
| 2 | 330 | 7.3x4.3x1.9 | 9 | 3500 | 66 | SA10BL331A19R09XXX |
| 2 | 470 | 7.3x4.3x1.9 | 4.5 | 3500 | 94 | SA10BM471A19R04XXX |
| 2 | 470 | 7.3x4.3x1.9 | 6 | 3500 | 94 | SA10BM471A19R06XXX |
| 2 | 470 | 7.3x4.3x1.9 | 9 | 3500 | 94 | SA10BM471A19R09XXX |
| 2.5 | 47 | 7.3x4.3x1.9 | 40 | 1800 | 11.75 | SA10EM470A19R40XXX |
| 2.5 | 100 | 7.3x4.3x1.9 | 16 | 2000 | 25 | SA10EM101A19R16XXX |
| 2.5 | 150 | 7.3x4.3x1.9 | 9 | 3000 | 37.5 | SA10EM151A19R09XXX |
| 2.5 | 180 | 7.3x4.3x1.9 | 9 | 3000 | 45 | SA10EM181A19R09XXX |
| 2.5 | 220 | 7.3x4.3x1.9 | 9 | 3000 | 55 | SA10EM221A19R09XXX |
| 2.5 | 220 | 7.3x4.3x1.9 | 9 | 3000 | 55 | SA10EL221A19R0930X |
| 2.5 | 220 | 7.3x4.3x1.9 | 9 | 3000 | 55 | SA10EL221A19R09XXX |
| 2.5 | 270 | 7.3x4.3x1.9 | 9 | 3500 | 67.5 | SA10EM271A19R09XXX |
| 2.5 | 330 | 7.3x4.3x1.9 | 7 | 3500 | 82.5 | SA10EM331A19R07XXX |
| 2.5 | 330 | 7.3x4.3x1.9 | 4.5 | 3500 | 82.5 | SA10EM331A19R04XXX |
| 2.5 | 330 | 7.3x4.3x1.9 | 9 | 3500 | 82.5 | SA10EM331A19R09XXX |
| 2.5 | 470 | 7.3x4.3x1.9 | 4.5 | 3500 | 117.5 | SA10EM471A19R04XXX |
| 2.5 | 470 | 7.3x4.3x1.9 | 6 | 3500 | 117.5 | SA10EM471A19R06XXX |
| 4 | 68 | 7.3x4.3x1.9 | 20 | 1900 | 27.2 | SA10GM680A19R20XXX |
| 4 | 82 | 7.3x4.3x1.9 | 16 | 2100 | 32.8 | SA10GM820A19R16XXX |
| 4 | 120 | 7.3x4.3x1.9 | 16 | 2100 | 48 | SA10GM121A19R16XXX |
| 4 | 150 | 7.3x4.3x1.9 | 16 | 2100 | 60 | SA10GM151A19R16XXX |
| 6.3 | 4.7 | 7.3x4.3x1.9 | 120 | 1000 | 2.961 | SA10JM4R7A19RA2XXX |
| 6.3 | 10 | 7.3x4.3x1.9 | 55 | 1000 | 6.3 | SA10JM100A19R55XXX |
| 6.3 | 22 | 7.3x4.3x1.9 | 45 | 1000 | 13.9 | SA10JM220A19R45XXX |
| 6.3 | 22 | 7.3x4.3x1.9 | 80 | 1000 | 13.86 | SA10JM220A19R80XXX |
| 6.3 | 33 | 7.3x4.3x1.9 | 80 | 1800 | 20.79 | SA10JM330A19R80XXX |
| 6.3 | 47 | 7.3x4.3x1.9 | 25 | 1800 | 29.6 | SA10JM470A19R25XXX |
| 6.3 | 47 | 7.3x4.3x1.9 | 35 | 1800 | 29.61 | SA10JM470A19R35XXX |
| 6.3 | 47 | 7.3x4.3x1.9 | 40 | 1800 | 29.61 | SA10JM470A19R40XXX |
| 6.3 | 68 | 7.3x4.3x1.9 | 15 | 2000 | 42.84 | SA10JM680A19R15XXX |
| 6.3 | 100 | 7.3x4.3x1.9 | 15 | 2000 | 63 | SA10JM101A19R15XXX |
| 6.3 | 100 | 7.3x4.3x1.9 | 20 | 1900 | 63 | SA10JM101A19R20XXX |
| 6.3 | 100 | 7.3x4.3x1.9 | 30 | 2000 | 63 | SA10JM101A19R30XXX |
| 6.3 | 120 | 7.3x4.3x1.9 | 10 | 3000 | 75.6 | SA10JM121A19R10XXX |
| 6.3 | 150 | 7.3x4.3x1.9 | 10 | 3000 | 94.5 | SA10JM151A19R10XXX |
| 6.3 | 150 | 7.3x4.3x1.9 | 15 | 3000 | 94.5 | SA10JM151A19R15XXX |
| 6.3 | 180 | 7.3x4.3x1.9 | 15 | 3000 | 113.4 | SA10JM181A19R15XXX |
| 6.3 | 220 | 7.3x4.3x1.9 | 10 | 3000 | 138.6 | SA10JM221A19R10XXX |
| 6.3 | 220 | 7.3x4.3x1.9 | 15 | 3000 | 138.6 | SA10JM221A19R1530X |
| 6.3 | 220 | 7.3x4.3x1.9 | 15 | 3000 | 138.6 | SA10JL221A19R15XXX |
| 6.3 | 220 | 7.3x4.3x1.9 | 15 | 3000 | 138.6 | SA10JL221A19R1530X |
| 6.3 | 220 | 7.3x4.3x1.9 | 15 | 3000 | 138.6 | SA10JM221A19R15XXX |
| 10 | 10 | 7.3x4.3x1.9 | 55 | 1000 | 10 | SA11AM100A19R55XXX |
| 10 | 22 | 7.3x4.3x1.9 | 120 | 1600 | 22 | SA11AM220A19RA2XXX |
| 10 | 27 | 7.3x4.3x1.9 | 80 | 1000 | 27 | SA11AM270A19R80XXX |
| 10 | 33 | 7.3x4.3x1.9 | 25 | 1800 | 33 | SA11AM330A19R25XXX |
| 10 | 39 | 7.3x4.3x1.9 | 25 | 1800 | 39 | SA11AM390A19R25XXX |
| 10 | 47 | 7.3x4.3x1.9 | 40 | 1800 | 47 | SA11AM470A19R40XXX |
| 10 | 68 | 7.3x4.3x1.9 | 40 | 1800 | 68 | SA11AM680A19R40XXX |
| 10 | 100 | 7.3x4.3x1.9 | 15 | 2500 | 100 | SA11AM101A19R15XXX |
| 10 | 100 | 7.3x4.3x1.9 | 40 | 2500 | 100 | SA11AM101A19R40XXX |
| 10 | 100 | 7.3x4.3x1.9 | 40 | 2500 | 100 | SA11AL101A19R40XXX |
| 16 | 4.7 | 7.3x4.3x1.9 | 120 | 1000 | 7.52 | SA11CM4R7A19RA2XXX |
| 16 | 6.8 | 7.3x4.3x1.9 | 70 | 1000 | 10.88 | SA11CM6R8A19R70XXX |
| 16 | 10 | 7.3x4.3x1.9 | 60 | 1000 | 16 | SA11CM100A19R60XXX |
| 16 | 15 | 7.3x4.3x1.9 | 40 | 1000 | 24 | SA11CM150A19R40XXX |
| 16 | 22 | 7.3x4.3x1.9 | 30 | 1600 | 35.2 | SA11CM220A19R30XXX |
| 16 | 22 | 7.3x4.3x1.9 | 60 | 1400 | 35.2 | SA11CM220A19R60XXX |
| 16 | 33 | 7.3x4.3x1.9 | 80 | 1400 | 52.8 | SA11CM330A19R80XXX |
| 16 | 47 | 7.3x4.3x1.9 | 55 | 1400 | 75.2 | SA11CM470A19R55XXX |
| 25 | 2.2 | 7.3x4.3x1.9 | 350 | 800 | 5.5 | SA11EM2R2A19RC0XXX |
| 25 | 4.7 | 7.3x4.3x1.9 | 120 | 1000 | 11.75 | SA11EM4R7A19RA2XXX |
| 25 | 6.8 | 7.3x4.3x1.9 | 80 | 1000 | 17 | SA11EM6R8A19R80XXX |
| 25 | 10 | 7.3x4.3x1.9 | 35 | 1000 | 25 | SA11EM100A19R35XXX |
| 25 | 10 | 7.3x4.3x1.9 | 60 | 1400 | 25 | SA11EM100A19R60XXX |
| 25 | 10 | 7.3x4.3x1.9 | 80 | 1400 | 25 | SA11EM100A19R80XXX |
| 25 | 15 | 7.3x4.3x1.9 | 60 | 1400 | 37.5 | SA11EM150A19R60XXX |
| 25 | 22 | 7.3x4.3x1.9 | 60 | 1400 | 55 | SA11EM220A19R60XXX |
| 25 | 33 | 7.3x4.3x1.9 | 40 | 1400 | 82.5 | SA11EM330A19R40XXX |
| 25 | 33 | 7.3x4.3x1.9 | 60 | 1400 | 82.5 | SA11EM330A19R60XXX |
| 25 | 33 | 7.3x4.3x1.9 | 80 | 1400 | 82.5 | SA11EM330A19R8014X |
| 25 | 33 | 7.3x4.3x1.9 | 80 | 1400 | 82.5 | SA11EM330A19R80XXX |

