

AXS Series

Features

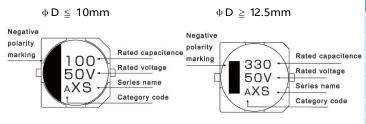
- $\phi 4 \sim \phi 12.5$, 85°C, 2000 hours assured
- · Designed for reflow soldering
- · Designed for surface mounting on high-density PCB
- RoHS 2.0 compliant, 247 REACH&SVHC compliant
- AEC-Q200 compliant, Please contact Jarson for more details, test data, information

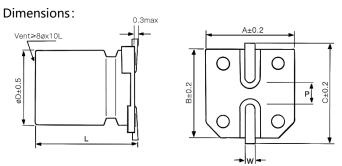


Marking color: Black

| Specifications | | | | | | | | | | | |
|--|--|--|------|----|-----|----|----|------|-----|------------------------------|--|
| Category temp. range | –40°C to +85°C | | | | | | | | | | |
| Capacitance tolerance | ±20% (120 Hz / +20 ℃) | | | | | | | | | | |
| Leakage current | $I \le 0.01$ CV or 3 μA whichever is greater (after 2 minutes) | | | | | | | | | | |
| Tanδ | Please see the attached characteristics list | | | | | | | | | | |
| Characteristics at low | Rated voltage (V) | 6.3 | 10 | 16 | 25 | 35 | 50 | 63 | 100 | | |
| | Z(-25°C)/Z(+20°C) | 4 | 4 | 3 | 2 | 2 | 2 | 2 | 2 | Impedance ratio at 120 Hz | |
| temperature | Z (-40 °C) / Z (+20 °C) | 8 | 6 | 4 | 3 | 3 | 3 | 3 | 3 | | |
| | After applying rated working voltage for 2000 hours at +85 °C \pm 2 °C, and then being stabilized at +20 °C, | | | | | | | | | | |
| | capacitors shall meet the following limits. | | | | | | | | | | |
| Endurance | Capacitance change Within ±20% of the initial value | | | | | | | | | | |
| | Dissipation factor ($tan \delta$) Less than 200% of the initial value | | | | | | | | | | |
| | Leakage current Within the initial limit | | | | | | | | | | |
| Shelf life | After storage for 1000 h at +85 $^{\circ}$ C ± 2 $^{\circ}$ C with no voltage applied and then being stabilized at +20 $^{\circ}$ C, | | | | | | | | | | |
| Sileli ille | capacitors shall meet the limits specified in endurance. | | | | | | | | | | |
| | After reflow soldering and then being stabilized at +20 °C, capacitors shall meet the following limits. | | | | | | | | | | |
| Resistance to | Capacitance change Within ±10% of the initial value | | | | | | | | | | |
| soldering heat | Dissipation factor (tan δ) | oation factor (tan δ) Within the initial limit | | | | | | | | | |
| | Leakage current | Within the initial limit | | | | | | | | | |
| Frequency correction factor for ripple current | Frequency | | 50Hz | | 120 | Hz | | 1kHz | | 10kHz≦ | |
| | C≤ 1000µF | | 0.7 | | 1.0 |) | | 1.2 | | 1.3 | |
| | C> 1000µF | | 0.8 | | 1.0 |) | | 1.1 | | 1.2 | |

Marking:





| Dimensions Unit: mm | | | | | | | | |
|---------------------|----------|------|------|------|---------|-------|--|--|
| φD | L | Α | В | С | W | P±0.2 | | |
| 4 | 5.4±0.3 | 4.3 | 4.3 | 5.1 | 0.5~0.8 | 1.0 | | |
| 5 | 5.4±0.3 | 5.3 | 5.3 | 6.0 | 0.5~0.8 | 1.4 | | |
| 6.3 | 5.4±0.3 | 6.6 | 6.6 | 7.3 | 0.5~0.8 | 2.0 | | |
| 6.3 | 7.7±0.3 | 6.6 | 6.6 | 7.3 | 0.5~0.8 | 2.0 | | |
| 8 | 6.5±0.5 | 8.3 | 8.3 | 9.1 | 0.7~1.3 | 3.1 | | |
| 8 | 10.5±0.5 | 8.3 | 8.3 | 9.1 | 0.7~1.3 | 3.1 | | |
| 10 | 7.7±0.5 | 10.3 | 10.3 | 11.1 | 0.7~1.3 | 4.4 | | |
| 10 | 10.5±0.5 | 10.3 | 10.3 | 11.1 | 0.7~1.3 | 4.4 | | |
| 10 | 13±0.5 | 10.3 | 10.3 | 11.1 | 0.7~1.3 | 4.4 | | |
| 12.5 | 13.5±0.5 | 13.0 | 13.0 | 14.0 | 1.1~1.4 | 4.4 | | |
| 12.5 | 16±0.5 | 13.0 | 13.0 | 14.0 | 1.1~1.4 | 4.4 | | |



Part Number System:

SMD Aluminum E-Caps AXS series 16V 220 μ F $\pm 20\%$ 6.3 \oplus x7.7L

A XS 1C 221 M 0607

Product category Series name Rated voltage Capacitance Capacitance tolerance Case Size

| Characteri | stics list | • | <u>.</u> | <u>'</u> | • | <u>'</u> | |
|------------------|--------------------|------------|-----------|----------------------|--------|---------------|-------------------|
| | Case size | | | Specificat | ion | | Taping&Reel |
| Rated voltage | Capacitance (±20%) | | | Rated ripple | | Part Number③ | - |
| (V) | (±20%) (μF) | øD (mm) | L (mm) | current① (mA rms) | tan δ② | | MPQ (pcs/reel) |
| | 22 | 4 | 5.4 | 26 | 0.35 | AXS0J220M0405 | 2000 |
| | 33 | 4 | 5.4 | 31 | 0.35 | AXS0J330M0405 | 2000 |
| | 47 | 4 | 5.4 | 34 | 0.35 | AXS0J470M0405 | 2000 |
| | 47 | 5 | 5.4 | 55 | 0.35 | AXS0J470M0505 | 1000 |
| | 60 | 5 | 5.4 | 58 | 0.35 | AXS0J680M0505 | 1000 |
| | 68 | 6.3 | 5.4 | 89 | 0.35 | AXS0J680M0605 | 1000 |
| | 100 | 5 | 5.4 | 58 | 0.35 | AXS0J101M0505 | 1000 |
| | 100 | 6.3 | 5.4 | 89 | 0.35 | AXS0J101M0605 | 1000 |
| | 220 | 6.3 | 5.4 | 89 | 0.35 | AXS0J221M0605 | 1000 |
| 6.3 | 220 | 6.3 | 7.7 | 124 | 0.35 | AXS0J221M0607 | 1000 |
| | 330 | 6.3 | 7.7 | 124 | 0.35 | AXS0J331M0607 | 1000 |
| | 330 | 8 | 6.5 | 190 | 0.35 | AXS0J331M0806 | 1000 |
| | 470 | 6.3 | 7.7 | 124 | 0.35 | AXS0J471M0607 | 1000 |
| | 470 | 8 | 10.5 | 290 | 0.35 | AXS0J471M0810 | 500 |
| | 680 | 10 | 7.7 | 290 | 0.35 | AXS0J681M1007 | 500 |
| | 1000 | 8 | 10.5 | 290 | 0.35 | AXS0J102M0810 | 500 |
| | 1000 | 10 | 10.5 | 430 | 0.35 | AXS0J102M1010 | 500 |
| | 2200 | 12.5 | 13.5 | 890 | 0.40 | AXS0J222M1313 | 200 |
| | 3300 | 12.5 | 16 | 1000 | 0.42 | AXS0J332M1316 | 200 |
| | 10 | 4 | 5.4 | 26 | 0.30 | AXS1A100M0405 | 2000 |
| | 22 33 | 4 | 5.4 | 26 | 0.30 | AXS1A220M0405 | 2000 |
| | | 5 | 5.4 | 44 | 0.30 | AXS1A220M0505 | 1000 |
| | | 4 | 5.4 | 31 | 0.30 | AXS1A330M0405 | 2000 |
| | | 5 | 5.4 | 55 | 0.30 | AXS1A330M0505 | 1000 |
| | 47 | 5 | 5.4 | 55 | 0.30 | AXS1A470M0505 | 1000 |
| | | 6.3 | 5.4 | 75 | 0.30 | AXS1A470M0605 | 1000 |
| | 68 | 5 | 5.4 | 58 | 0.30 | AXS1A680M0505 | 1000 |
| | | 6.3 | 5.4 | 89 | 0.30 | AXS1A680M0605 | 1000 |
| | 100 | 5 | 5.4 | 58 | 0.30 | AXS1A101M0505 | 1000 |
| | | 6.3 | 5.4 | 89 | 0.30 | AXS1A101M0605 | 1000 |
| 10 | | 6.3 | 5.4 | 89 | 0.30 | AXS1A221M0605 | 1000 |
| | 220 | 6.3 | 7.7 | 124 | 0.30 | AXS1A221M0607 | 1000 |
| | | 8 | 6.5 | 175 | 0.30 | AXS1A221M0806 | 1000 |
| | | 8 | 10.5 | 270 | 0.30 | AXS1A221M0810 | 500 |
| | 330 | 6.3 | 7.7 | 124 | 0.30 | AXS1A331M0607 | 1000 |
| | | 8 | 10.5 | 290 | 0.30 | AXS1A331M0810 | 500 |
| | 470 | 6.3 | 7.7 | 110 | 0.30 | AXS1A471M0607 | 1000 |
| | | 8 | 10.5 | 290 | 0.30 | AXS1A471M0810 | 500 |
| | | 10 | 7.7 | 290 | 0.30 | AXS1A471M1007 | 500 |
| | | 10 | 10.5 | 400 | 0.30 | AXS1A471M1010 | 500 |
| | 680 | 10 | 10.5 | 410 | 0.30 | AXS1A681M1010 | 500 |
| | 1000 | 10 | 10.5 | 430 | 0.30 | AXS1A102M1010 | 500 |
| | 2200 | 12.5 | 13.5 | 890 | 0.36 | AXS1A222M1313 | 200 |

 $[\]textcircled{3} \ \, \text{Rated ripple current (120Hz / +105^{\circ}\text{C}) } \qquad \textcircled{2} \ \, \text{tan } \delta \ \, \text{(120Hz / +20^{\circ}\text{C})} \qquad \textcircled{3} \ \, \text{For automotive, the Part Number is appended with "a" at the end.}$

^{*} Please refer to the page of reflow conditions for reflow profile.



| Characteristics list | | | | | | | | |
|----------------------|----------------|-----------|------|--------------|--------|---------------|-------------|--|
| Rated | Capacitance | Case size | | Specificat | ion | | Taping&Reel | |
| voltage | (±20%) | øD | L | Rated ripple | | Part Number③ | MPQ | |
| (V) | (±26%) (μF) | (mm) | (mm) | current① | tan δ② | rarervamber | (pcs/reel) | |
| (*) | | | ` ' | (mA rms) | | | | |
| | 10 | 4 | 5.4 | 26 | 0.24 | AXS1C100M0405 | 2000 | |
| | 22 | 4 | 5.4 | 30 | 0.24 | AXS1C220M0405 | 2000 | |
| | | 5 | 5.4 | 44 | 0.24 | AXS1C220M0505 | 1000 | |
| | 33 | 5 | 5.4 | 55 | 0.24 | AXS1C330M0505 | 1000 | |
| | 47 | 5 | 5.4 | 55 | 0.24 | AXS1C470M0505 | 1000 | |
| | | 6.3 | 5.4 | 75 | 0.24 | AXS1C470M0605 | 1000 | |
| | 68 | 6.3 | 5.4 | 89 | 0.24 | AXS1C680M0605 | 1000 | |
| | | 6.3 | 5.4 | 89 | 0.24 | AXS1C101M0605 | 1000 | |
| | 100 | 6.3 | 7.7 | 109 | 0.24 | AXS1C101M0607 | 1000 | |
| | | 8 | 6.5 | 125 | 0.24 | AXS1C101M0806 | 1000 | |
| 16 | | 6.3 | 7.7 | 124 | 0.24 | AXS1C221M0607 | 1000 | |
| | 220 | 8 | 6.5 | 124 | 0.24 | AXS1C221M0806 | 1000 | |
| | | 8 | 10.5 | 270 | 0.24 | AXS1C221M0810 | 500 | |
| | 330 | 8 | 10.5 | 290 | 0.24 | AXS1C331M0810 | 500 | |
| | | 10 | 7.7 | 290 | 0.24 | AXS1C331M1007 | 500 | |
| | 470 | 8 | 10.5 | 290 | 0.24 | AXS1C471M0810 | 500 | |
| | | 10 | 10.5 | 400 | 0.24 | AXS1C471M1010 | 500 | |
| | 680 | 10 | 10.5 | 410 | 0.24 | AXS1C681M1010 | 500 | |
| | 1000 | 10 | 10.5 | 370 | 0.24 | AXS1C102M1010 | 500 | |
| | | 10 | 13 | 430 | 0.24 | AXS1C102M1013 | 400 | |
| | | 12.5 | 13.5 | 750 | 0.32 | AXS1C102M1313 | 200 | |
| | 4.7 | 4 | 5.4 | 26 | 0.18 | AXS1E4R7M0405 | 2000 | |
| | 10 | 4 | 5.4 | 26 | 0.18 | AXS1E100M0405 | 2000 | |
| | | 5 | 5.4 | 44 | 0.18 | AXS1E100M0505 | 1000 | |
| | 22 | 5 | 5.4 | 47 | 0.18 | AXS1E220M0505 | 1000 | |
| | | 6.3 | 5.4 | 59 | 0.18 | AXS1E220M0605 | 1000 | |
| | 33 | 5 | 5.4 | 55 | 0.18 | AXS1E330M0505 | 1000 | |
| | | 6.3 | 5.4 | 67 | 0.18 | AXS1E330M0605 | 1000 | |
| | 47 | 6.3 | 5.4 | 75 | 0.18 | AXS1E470M0605 | 1000 | |
| | | 6.3 | 7.7 | 98 | 0.18 | AXS1E470M0607 | 1000 | |
| | | 8 | 6.5 | 98 | 0.18 | AXS1E470M0806 | 1000 | |
| | 68 | 6.3 | 5.4 | 75 | 0.18 | AXS1E680M0605 | 1000 | |
| 25 | | 6.3 | 7.7 | 109 | 0.18 | AXS1E680M0607 | 1000 | |
| | | 6.3 | 5.4 | 67 | 0.18 | AXS1E101M0605 | 1000 | |
| | 100 | 6.3 | 7.7 | 109 | 0.18 | AXS1E101M0607 | 1000 | |
| | | 8 | 6.5 | 125 | 0.18 | AXS1E101M0806 | 1000 | |
| | | 8 | 10.5 | 270 | 0.18 | AXS1E101M0810 | 500 | |
| | 220 | 8 | 10.5 | 270 | 0.18 | AXS1E221M0810 | 500 | |
| | 330 | 10 | 7.7 | 270 | 0.18 | AXS1E221M1007 | 500 | |
| | | 8 | 10.5 | 270 | 0.18 | AXS1E331M0810 | 500 | |
| | | 10 | 10.5 | 400 | 0.18 | AXS1E331M1010 | 500 | |
| | 470 | 10 | 10.5 | 400 | 0.18 | AXS1E471M1010 | 500 | |
| | 680 | 10 | 13 | 430 | 0.18 | AXS1E681M1013 | 400 | |
| | 1000 | 12.5 | 13.5 | 680 | 0.26 | AXS1E681M1313 | 200 | |
| | 1000 | 12.5 | 13.5 | 750 | 0.28 | AXS1E102M1313 | 200 | |

 $[\]ensuremath{\mathbb{X}}$ Please refer to the page of reflow conditions for reflow profile.



| Characteris | stics list | | | | | | |
|-------------|-----------------|-----------|------------|--------------|--------------|--------------------------------|--------------|
| Rated | Capacitance | Case size | | Specificat | ion | | Taping&Reel |
| voltage | (±20%) | øD | L | Rated ripple | | Part Number③ | MPQ |
| (V) | (±2676) (μF) | (mm) | (mm) | current① | tan δ② | Ture realiser | (pcs/reel) |
| (*) | | | | (mA rms) | | | |
| | 4.7 | 4 | 5.4 | 26 | 0.16 | AXS1V4R7M0405 | 2000 |
| | 10 | 4 | 5.4 | 26 | 0.16 | AXS1V100M0405 | 2000 |
| | | 5 | 5.4 | 44 | 0.16 | AXS1V100M0505 | 1000 |
| | 22 | 5 | 5.4 | 47 | 0.16 | AXS1V220M0505 | 1000 |
| | | 6.3 | 5.4 | 59 | 0.16 | AXS1V220M0605 | 1000 |
| | 33 | 6.3 | 5.4 | 67 | 0.16 | AXS1V330M0605 | 1000 |
| | | 6.3 | 7.7 | 85 | 0.16 | AXS1V330M0607 | 1000 |
| | | 6.3 | 5.4 | 67 | 0.16 | AXS1V470M0605 | 1000 |
| | 47 | 6.3 | 7.7 | 98 | 0.16 | AXS1V470M0607 | 1000 |
| | | 8 | 6.5 | 105 | 0.16 | AXS1V470M0806 | 1000 |
| 35 | 68 | 6.3 | 7.7 | 109 | 0.16 | AXS1V680M0607 | 1000 |
| | 100 | 6.3 | 7.7 | 109 | 0.16 | AXS1V101M0607 | 1000 |
| | | 8 | 10.5 | 252 | 0.16 | AXS1V101M0810 | 500 |
| | 150 | 10 | 7.7 | 252 | 0.16 | AXS1V151M1007 | 500 |
| | 330 | 8 | 10.5 | 270 | 0.16 | AXS1V221M0810 | 500 |
| | | 10 | 10.5 | 370 | 0.16 | AXS1V221M1010 | 500 |
| | | 10 | 10.5 | 400 | 0.16 | AXS1V331M1010 | 500 |
| | | 10 | 13 | 430 | 0.16 | AXS1V331M1013 | 400 |
| | 470 | 10 | 10.5 | 370 | 0.16 | AXS1V471M1010 | 500 |
| | | 10 | 13 | 430 | 0.16 | AXS1V471M1013 | 400 |
| | 500 | 12.5 | 13.5 | 680 | 0.22 | AXS1V471M1313 | 200 |
| | 680 | 12.5 | 13.5 | 680 | 0.22 | AXS1V681M1313 | 200 |
| | 1 | 4 | 5.4 | 10 | 0.14 | AXS1H010M0405 | 2000 |
| | 2.2 | 4 | 5.4 | 14 | 0.14 | AXS1H2R2M0405 | 2000 |
| | 3.3 4.7 | 4 | 5.4 | 17 | 0.14 | AXS1H3R3M0405 | 2000 |
| | | 4 | 5.4 | 20 | 0.14 | AXS1H4R7M0405 | 2000 |
| | 10 | 5 | 5.4 | 35 35 | 0.14 | AXS1H4R7M0505 | 1000 |
| | | | 5.4 | | 0.14 | AXS1H100M0505 | 1000 |
| | | 6.3 | 5.4 5.4 | 50 50 | 0.14 | AXS1H100M0605 | 1000 1000 |
| | 22 | 6.3 | | | 0.14 | AXS1H220M0605 AXS1H220M0607 | - |
| | | 6.3 8 | 7.7 | 65 70 | 0.14 0.14 | AXS1H220M0807 AXS1H220M0806 | 1000 1000 |
| | 33 | 6.3 | 6.5 7.7 | 75 | 0.14 | AXS1H220M0606 AXS1H330M0607 | 1000 |
| 50 | | 8 | 6.5 | 95 | 0.14 | AXS1H330M0806 | 1000 |
| | | | | 75 | | AXS1H330M0606 AXS1H470M0607 | - |
| | 47 | 6.3 8 | 7.7 6.5 | 75 95 | 0.14 0.14 | AXS1H470M0807 AXS1H470M0806 | 1000 1000 |
| | | 8 | 10.5 | 190 | 0.14 | AXS1H470M0806 AXS1H470M0810 | 500 |
| | 68 | 8 | 10.5 | 190 | 0.14 | AXS1H470M0810 AXS1H680M0810 | 500 |
| | 100 | 8 | 10.5 | 190 | 0.14 | AXS1H660M0610 AXS1H101M0810 | 500 |
| | | 10 | 10.5 | 320 | 0.14 | AXS1H101M0610 AXS1H101M1010 | 500 |
| | | 10 | 10.5 | 320 | 0.14 | AXS1H101M1010 AXS1H221M1010 | 500 |
| | 220 | 10 | 10.5 | 320 | 0.14 | AXS1H221M1010 AXS1H331M1013 | 400 |
| | 330 | 12.5 | 13.5 | 600 | 0.14 | AXS1H331M1013 AXS1H331M1313 | 200 |
| | 470 | 12.5 | 16 | 740 | 0.18 | AXS1H331M1313 AXS1H471M1316 | 200 |
| | 4/0 | 12.5 | 10 | /40 | 0.10 | AV21U4/11/11210 | |

 $[\]ensuremath{\mathbb{X}}$ Please refer to the page of reflow conditions for reflow profile.



Characteristics list Specification Case size Taping&Reel Capacitance Rated Rated ripple voltage $(\pm 20\%)$ Part Number 3 øD L **MPQ** tan δ② current₁ (V) (μF) (mm) (mm) (pcs/reel) (mA rms) 5.4 0.12 AXS1J010M0405 2000 1 4 8 2.2 4 12 0.12 AXS1J2R2M0405 2000 5.4 5 22 0.12 1000 3.3 5.4 AXS1J3R3M0505 5 0.12 4.7 5.4 25 AXS1J4R7M0505 1000 40 1000 6.3 5.4 0.12 AXS1J100M0605 10 8 6.5 46 0.12 AXS1J100M0806 1000 6.3 7.7 49 0.12 AXS1J220M0607 1000 22 6.5 55 0.12 AXS1J220M0806 1000 8 63 8 10.5 0.12 AXS1J220M0810 500 139 33 8 10.5 139 0.12 AXS1J330M0810 500 8 10.5 139 0.12 AXS1J470M0810 500 47 10 10.5 200 0.12 AXS1J470M1010 500 68 10 10.5 226 0.12 AXS1J680M1010 500 10 10.5 226 0.12 AXS1J101M1010 500 100 10 13 270 0.12 AXS1J101M1013 400 0.14 200 220 12.5 13.5 500 AXS1J221M1313 12.5 0.14 200 330 600 16 AXS1J331M1316 5 5.4 15 0.12 AXS2A4R7M0505 1000 4.7 6.3 5.4 21 0.12 AXS2A4R7M0605 1000 7.7 0.12 6.3 35 AXS2A4R7M0607 1000 6.3 5.4 25 0.12 AXS2A100M0605 1000 6.3 7.7 35 0.12 AXS2A100M0607 1000 10 1000 8 6.5 50 0.12 AXS2A100M0806 90 8 10.5 0.12 AXS2A100M0810 500 10.5 0.12 500 8 90 AXS2A220M0810 100 22 10 10.5 120 0.12 AXS2A220M1010 500 33 10 10.5 120 0.12 AXS2A330M1010 500 10.5 AXS2A470M1010 500 10 120 0.12 47 10 13 160 0.12 AXS2A470M1013 400 12.5 200 13.5 340 0.12 AXS2A470M1313 10 13 180 0.12 AXS2A680M1013 400 68 12.5 13.5 380 0.14 AXS2A680M1313 200 100 12.5 440 200 13.5 0.14 AXS2A101M1313

① Rated ripple current (120Hz / +105°C) ② tan δ (120Hz / +20°C) ③ For automotive, the Part Number is appended with "a" at the end.