

# AXZ

## +105°C Low Impedance surface mount Aluminum Electrolytic Capacitors



### Applications

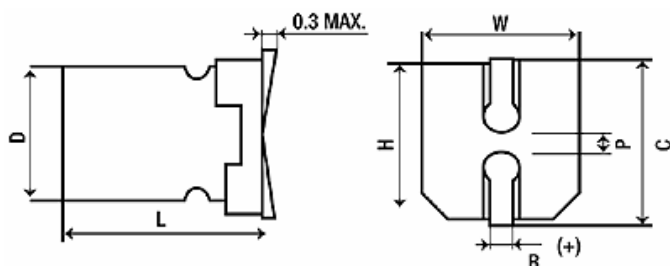
- Switching power supplies
- Control circuits

### Features

- Low impedance
- High ripple current
- RoHS Compliant
- Long Life
- High temperature

### Specifications

| Operating Temperature Range                        |                                                                                                                                                                                                 | -55°C to +105°C                    |     |      |                  |      |      |  |     |
|----------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|-----|------|------------------|------|------|--|-----|
| Capacitance Tolerance                              |                                                                                                                                                                                                 | +20% at 120 Hz, 20°C               |     |      |                  |      |      |  |     |
| Surge voltage                                      | WVDC                                                                                                                                                                                            | 6.3                                | 10  | 16   | 25               | 35   | 50   |  |     |
|                                                    | SVDC                                                                                                                                                                                            | 7.9                                | 13  | 20   | 32               | 44   | 63   |  |     |
| Dissipation Factor (tan δ)                         | WVDC                                                                                                                                                                                            | 6.3                                | 10  | 16   | 25               | 35   | 50   |  |     |
|                                                    | D<8                                                                                                                                                                                             | .26                                | .2  | .16  | .14              | .12  | .12  |  |     |
|                                                    | D≥8                                                                                                                                                                                             | .28                                | .24 | .2   | .16              | .14  | .14  |  |     |
| Leakage current                                    |                                                                                                                                                                                                 | .01CV or 3uA, Whichever is greater |     |      |                  |      |      |  |     |
|                                                    |                                                                                                                                                                                                 | 2 Minutes                          |     |      |                  |      |      |  |     |
| Low temperature stability Impedance ratio (120 Hz) | Rated WVDC                                                                                                                                                                                      | 6.3                                | 10  | 16   | 25               | 35   | 50   |  |     |
|                                                    | -25°C to +20°C                                                                                                                                                                                  | 2                                  | 2   | 2    | 2                | 2    | 2    |  |     |
|                                                    | -55°C to +20°C                                                                                                                                                                                  | 4                                  | 4   | 3    | 3                | 3    | 3    |  |     |
| Load Life                                          | 2000 Hours at rated voltage and 105°C                                                                                                                                                           |                                    |     |      |                  |      |      |  |     |
|                                                    | Capacitance change                                                                                                                                                                              | <30% of initial measured value     |     |      |                  |      |      |  |     |
|                                                    | Dissipation factor                                                                                                                                                                              | <200% of maximum specified value   |     |      |                  |      |      |  |     |
|                                                    | Leakage current                                                                                                                                                                                 | ≥100% of maximum specified value   |     |      |                  |      |      |  |     |
| Shelf Life                                         | 1000 hours at 105°C with no voltage applied                                                                                                                                                     |                                    |     |      |                  |      |      |  |     |
|                                                    | Capacitance change                                                                                                                                                                              | <25% initial measured value        |     |      |                  |      |      |  |     |
|                                                    | Dissipation factor                                                                                                                                                                              | <200% of maximum specified value   |     |      |                  |      |      |  |     |
|                                                    | Insulation resistance                                                                                                                                                                           | ≥100% of maximum specified value   |     |      |                  |      |      |  |     |
| Resistance to soldering heat                       | Capacitors placed on a 250°C hot plate for 30 seconds with the terminals facing downward. After removal from hot plate and restored to room temperature the capacitors will meet the following. |                                    |     |      |                  |      |      |  |     |
|                                                    | Capacitance change                                                                                                                                                                              | ≤10% initial measured value        |     |      |                  |      |      |  |     |
|                                                    | Dissipation factor                                                                                                                                                                              | ≤100% of maximum specified value   |     |      |                  |      |      |  |     |
|                                                    | Insulation resistance                                                                                                                                                                           | ≥100% of maximum specified value   |     |      |                  |      |      |  |     |
| Ripple Current Multipliers                         | Frequency (Hz)                                                                                                                                                                                  |                                    |     |      | Temperature (°C) |      |      |  |     |
|                                                    | 60                                                                                                                                                                                              | 120                                | 300 | 1k   | 25               | 85   | 105  |  |     |
|                                                    | 0.35                                                                                                                                                                                            | 0.50                               | .64 | 0.83 | 1.00             | 2.10 | 1.70 |  | 1.0 |



| D+0.5 | L        | W+0.2 | H+0.2 | C+0.2 | R        | P+0.2 |
|-------|----------|-------|-------|-------|----------|-------|
| 5     | 5.4+0.2  | 5.3   | 5.3   | 5.9   | .65+0.15 | 1.4   |
| 6.3   | 5.4+0.2  | 6.6   | 6.6   | 7.3   | .65+0.15 | 2.2   |
| 6.3   | 7.7+0.2  | 6.6   | 6.6   | 7.3   | .65+0.15 | 2.2   |
| 8     | 10.5+0.5 | 8.3   | 8.3   | 9.9   | .95+0.15 | 3.2   |
| 10    | 10.5+0.5 | 10.3  | 10.3  | 11.6  | .95+0.15 | 4.6   |



# AXZ

+105°C Low  
Impedance Surface  
Mount Aluminum  
Electrolytic Capacitors

| CAP<br>(uF) | VDC | PART #     | ESR<br>(Ω) | Impedance<br>(Ω)<br>20°C/-10°C | I <sub>r</sub><br>(A)<br>105C | DxL<br>(mm) |
|-------------|-----|------------|------------|--------------------------------|-------------------------------|-------------|
| 1           | 50  | 105AXZ050M | 198.944    | 5                              | 30                            | 4x5.4       |
| 2.2         | 50  | 225AXZ050M | 90.429     | 5                              | 30                            | 4x5.4       |
| 3.3         | 50  | 335AXZ050M | 60.286     | 5                              | 30                            | 4x5.4       |
| 4.7         | 35  | 475AXZ035M | 42.328     | 1.8                            | 80                            | 4x5.4       |
| 4.7         | 50  | 475AXZ050M | 42.328     | 1.52                           | 85                            | 5x5.4       |
| 6.8         | 50  | 685AXZ050M | 29.256     | 1.2                            | 120                           | 5x5.4       |
| 10          | 25  | 106AXZ025M | 23.210     | 1.8                            | 80                            | 4x5.4       |
| 10          | 35  | 106AXZ035M | 19.894     | 0.76                           | 150                           | 5x5.4       |
| 10          | 50  | 106AXZ050M | 19.894     | 0.88                           | 165                           | 6.3x5.4     |
| 15          | 16  | 156AXZ016M | 17.684     | 1.8                            | 80                            | 4x5.4       |
| 15          | 35  | 156AXZ035M | 13.263     | 0.76                           | 150                           | 5x5.4       |
| 15          | 50  | 156AXZ050M | 13.263     | 0.88                           | 165                           | 6.3x5.4     |
| 22          | 10  | 226AXZ010M | 15.071     | 1.8                            | 80                            | 4x5.4       |
| 22          | 35  | 226AXZ035M | 9.043      | 0.76                           | 150                           | 5x5.4       |
| 22          | 50  | 226AXZ050M | 9.043      | 0.88                           | 165                           | 6.3x5.4     |
| 27          | 6.3 | 276AXZ6R3M | 14.737     | 1.8                            | 80                            | 4x5.4       |
| 27          | 16  | 276AXZ016M | 9.824      | 0.76                           | 150                           | 5x5.4       |
| 27          | 35  | 276AXZ035M | 7.368      | 0.44                           | 230                           | 6.3x5.4     |
| 27          | 50  | 276AXZ050M | 7.368      | 0.68                           | 185                           | 6.3x7.7     |
| 33          | 10  | 336AXZ010M | 10.048     | 0.76                           | 150                           | 5x5.4       |
| 33          | 35  | 336AXZ035M | 6.029      | 0.44                           | 230                           | 6.3x5.4     |
| 33          | 50  | 336AXZ050M | 6.029      | 0.68                           | 185                           | 6.3x7.7     |
| 47          | 6.3 | 476AXZ6R3M | 8.466      | 0.76                           | 150                           | 5x5.4       |
| 47          | 35  | 476AXZ035M | 4.233      | 0.44                           | 230                           | 6.3x5.4     |
| 47          | 50  | 476AXZ050M | 4.233      | 0.68                           | 185                           | 6.3x7.7     |
| 56          | 6.3 | 566AXZ6R3M | 7.105      | 0.76                           | 150                           | 5x5.4       |
| 56          | 25  | 566AXZ025M | 4.145      | 0.44                           | 230                           | 6.3x5.4     |

| CAP<br>(uF) | VDC | PART #       | ESR<br>(Ω) | Impedance<br>(Ω)<br>20°C/-10°C | I <sub>r</sub><br>(A)<br>105C | DxL<br>(mm) |
|-------------|-----|--------------|------------|--------------------------------|-------------------------------|-------------|
| 56          | 35  | 566AXZ035M   | 3.553      | 0.34                           | 280                           | 6.3x7.7     |
| 56          | 50  | 566AXZ050M   | 4.145      | 0.34                           | 350                           | 8x10.5      |
| 68          | 25  | 686AXZ025M   | 3.413      | 0.44                           | 230                           | 6.3x5.4     |
| 68          | 35  | 686AXZ035M   | 2.926      | 0.34                           | 280                           | 6.3x7.7     |
| 68          | 50  | 686AXZ050M   | 3.413      | 0.34                           | 350                           | 8x10.5      |
| 100         | 16  | 107AXZ016M   | 2.653      | 0.44                           | 230                           | 6.3x5.4     |
| 100         | 25  | 107AXZ025M   | 2.321      | 0.34                           | 280                           | 6.3x7.7     |
| 100         | 50  | 107AXZ050M   | 2.321      | 0.18                           | 300                           | 8x10.5      |
| 150         | 10  | 157AXZ010M   | 2.210      | 0.44                           | 230                           | 6.3x5.4     |
| 150         | 16  | 157AXZ016M   | 1.768      | 0.34                           | 280                           | 6.3x7.7     |
| 150         | 35  | 157AXZ035MD8 | 1.547      | 0.17                           | 600                           | 8x10.5      |
| 150         | 50  | 157AXZ050M   | 1.547      | 0.18                           | 670                           | 10x10.5     |
| 220         | 6.3 | 227AXZ6R3M   | 1.809      | 0.44                           | 230                           | 6.3x5.4     |
| 220         | 16  | 227AXZ016M   | 1.206      | 0.34                           | 280                           | 6.3x7.7     |
| 220         | 35  | 227AXZ035M   | 1.055      | 0.17                           | 600                           | 8x10.5      |
| 220         | 50  | 227AXZ050M   | 1.055      | 0.18                           | 670                           | 10x10.5     |
| 330         | 6.3 | 337AXZ6R3M   | 1.206      | 0.34                           | 280                           | 6.3x7.7     |
| 330         | 16  | 337AXZ016M   | 1.005      | 0.17                           | 450                           | 10x7.7      |
| 330         | 25  | 337AXZ025M   | 0.804      | 0.17                           | 600                           | 8x10.5      |
| 330         | 35  | 337AXZ035M   | 0.703      | 0.09                           | 850                           | 10x10.5     |
| 470         | 16  | 477AXZ016M   | 0.705      | 0.17                           | 600                           | 8x10.5      |
| 470         | 25  | 477AXZ025M   | 0.564      | 0.09                           | 850                           | 10x10.5     |
| 680         | 6.3 | 687AXZ6R3MD8 | 0.683      | 0.17                           | 600                           | 8x10.5      |
| 680         | 16  | 687AXZ016M   | 0.488      | 0.09                           | 850                           | 10x10.5     |
| 1000        | 6.3 | 108AXZ6R3M   | 0.464      | 0.17                           | 600                           | 8x10.5      |
| 1000        | 10  | 108AXZ010M   | 0.398      | 0.09                           | 850                           | 10x10.5     |
| 1500        | 6.3 | 158AXZ6R3M   | 0.309      | 0.09                           | 850                           | 10x10.5     |

