

# AXZ

## + 105°C Low Impedance Surface Mount Chip Aluminum Electrolytic Capacitors



**NEW!**

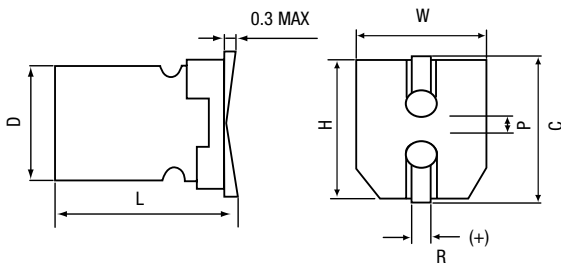
### FEATURES

- Wide Capacitance Range 4.7 to 1,500  $\mu\text{F}$
- Solvent Proof
- Low Impedance
- Operating Voltage Range: 6.3WVDC to 35WVDC
- Extended Life

### SPECIFICATIONS

|  |  |   |     |     |     |     |
|--|--|---|-----|-----|-----|-----|
| Capacitance Tolerance  |  | $\pm 20\%$ at 120Hz, 20°C   |     |     |     |     |
| Operating Temperature Range  |  | -55°C to +105°C   |     |     |     |     |
| Dissipation Factor<br>120Hz, 20°C (Max)<br>$\tan \delta$   | WVDC   | 6.3   | 10  | 16  | 25  | 35  |
|  | D=3  | .30   | -   | .19 | .16 | .14 |
|  | D=4-6.3  | .26   | .20 | .16 | .14 | .12 |
|  | D=8,10   | .30   | .24 | .20 | .16 | .14 |
| Note: For above D.F. specifications, add .02 for every 1000 $\mu\text{F}$ above 1000 $\mu\text{F}$ |  |   |     |     |     |     |
| Leakage current  | Time   | 2 minutes   |     |     |     |     |
|  | L.C.   | .01 CV or 3 $\mu\text{A}$ , whichever is greater  |     |     |     |     |
| Impedance Ratio at Low Temperature (120Hz)   | -25°C/20°C   | 3   | 2   | 2   | 2   | 2   |
|  | -40°C/20°C   | 5   | 4   | 4   | 3   | 3   |
| Load Life  | 2,000 hours at 105°C with rated voltage (D 6.3, 1000hrs.)  |   |     |     |     |     |
|  | Capacitance change<br>Dissipation factor<br>Leakage current  | 25% of initial measured values<br>200% initial specified value<br>100% Initial specified value  |     |     |     |     |
| Shelf Life   | 1000 hours at 105°C with no applied voltage.   |   |     |     |     |     |
| Resistance to Soldering Heat   | Capacitors placed on a 250°C hot plate for 30 seconds with their electrode terminals facing downward will fulfill the following conditions after being cooled to room temperature. |   |     |     |     |     |
|  | Capacitance change<br>Dissipation factor<br>Leakage current  | 10% of the initial measured value<br>The initial specified value<br>The Initial specified value |     |     |     |     |

### DIMENSIONS



| D <sub>+0.5 MAX</sub> | L                  | W <sub>+0.2</sub> | H <sub>+0.2</sub> | C <sub>+0.2</sub> | R       | P <sub>+0.2</sub> |
|-----------------------|--------------------|-------------------|-------------------|-------------------|---------|-------------------|
| 4                     | 6.0 $_{-0.1/-0.2}$ | 4.3               | 4.3               | 5.0               | 0.5~0.8 | 1.0               |
| 5                     | 6.0 $_{-0.1/-0.2}$ | 5.3               | 5.3               | 6.0               | 0.5~0.8 | 1.4               |
| 6.3                   | 6.0 $_{-0.3 MAX}$  | 6.6               | 6.6               | 7.3               | 0.5~0.8 | 2.2               |
| 6.3                   | 7.7 $_{-0.3 MAX}$  | 6.6               | 6.6               | 7.3               | 0.5~0.8 | 2.2               |
| 8                     | 10.2 $_{+0.3 MAX}$ | 8.3               | 8.3               | 9.0               | 0.7~1.0 | 3.2               |
| 10                    | 7.7 $_{-0.3 MAX}$  | 10.3              | 10.3              | 11.0              | 0.7~1.0 | 4.6               |
| 10                    | 10.2 $_{+0.3 MAX}$ | 10.3              | 10.3              | 11.0              | 0.7~1.0 | 4.6               |

(mm)

## STANDARD PART LISTING

| Capacitance (μF) | WVDC | IC PART NUMBER | Maximum E.S.R. Ω<br>120Hz,<br>+20°C | Impedance Ω<br>at 100kHz<br>+20°C | Maximum RMS Ripple Current (mA)<br>at 100kHz,<br>+105°C | Dimensions DxL (mm) |
|------------------|------|----------------|-------------------------------------|-----------------------------------|---|---------------------|
| 4.7              | 35   | 475AXZ035M     | 42.33                               | 1.8                               | 80  | 4x6                 |
| 10               | 25   | 106AXZ025M     | 23.21                               | 1.8                               | 80  | 4x6                 |
| 10               | 35   | 106AXZ035M     | 19.89                               | .76                               | 150   | 5x6                 |
| 15               | 16   | 156AXZ016M     | 17.68                               | 1.8                               | 80  | 4x6                 |
| 15               | 35   | 156AXZ035M     | 13.26                               | .76                               | 150   | 5x6                 |
| 22               | 10   | 226AXZ010M     | 15.07                               | 1.8                               | 80  | 4x6                 |
| 22               | 35   | 226AXZ035M     | 9.04                                | .76                               | 150   | 5x6                 |
| 33               | 10   | 336AXZ010M     | 10.05                               | .76                               | 150   | 5x6                 |
| 33               | 35   | 336AXZ035M     | 6.03                                | .44                               | 230   | 6.3x6               |
| 47               | 6.3  | 476AXZ6R3M     | 8.47                                | .76                               | 150   | 5x6                 |
| 47               | 35   | 476AXZ035M     | 4.23                                | .44                               | 230   | 6.3x6               |
| 56               | 6.3  | 566AXZ6R3M     | 7.11                                | .76                               | 150   | 5x6                 |
| 56               | 25   | 566AXZ025M     | 4.15                                | .44                               | 230   | 6.3x6               |
| 68               | 25   | 686AXZ025M     | 3.41                                | .44                               | 230   | 6.3x6               |
| 68               | 35   | 686AXZ035M     | 2.93                                | .34                               | 280   | 6.3x7.7             |
| 100              | 16   | 107AXZ016M     | 2.65                                | .44                               | 230   | 6.3x6               |
| 100              | 25   | 107AXZ025M     | 2.32                                | .34                               | 290   | 6.3x7.7             |
| 150              | 10   | 157AXZ010M     | 2.21                                | .44                               | 230   | 6.3x6               |
| 150              | 16   | 157AXZ016M     | 1.77                                | .34                               | 280   | 6.3x7.7             |

| Capacitance (μF) | WVDC | IC PART NUMBER | Maximum E.S.R. Ω<br>120Hz,<br>+20°C | Impedance Ω<br>at 100kHz<br>+20°C | Maximum RMS Ripple Current (mA)<br>at 100kHz,<br>+105°C | Dimensions DxL (mm) |
|------------------|------|----------------|-------------------------------------|-----------------------------------|---|---------------------|
| 150              | 35   | 157AXZ035MD8   | 1.55                                | .17                               | 450   | 8x10.2              |
| 150              | 35   | 157AXZ035M     | 1.55                                | .17                               | 450   | 10x7.7              |
| 220              | 6.3  | 227AXZ6R3M     | 1.81                                | .44                               | 230   | 6.3x6               |
| 220              | 16   | 227AXZ016M     | 1.206                               | .34                               | 280   | 6.3x7.7             |
| 220              | 25   | 227AXZ025M     | 1.206                               | .17                               | 450   | 10x7.7              |
| 220              | 35   | 227AXZ035M     | 1.06                                | .17                               | 450   | 8x10.2              |
| 330              | 6.3  | 337AXZ6R3M     | 1.206                               | .34                               | 280   | 6.3x7.7             |
| 330              | 16   | 337AXZ016M     | 1.01                                | .17                               | 450   | 10x7.7              |
| 330              | 25   | 337AXZ025M     | 0.804                               | .17                               | 450   | 8x10.2              |
| 330              | 35   | 337AXZ035M     | 0.703                               | .09                               | 670   | 10x10.2             |
| 470              | 10   | 477AXZ010M     | 0.847                               | .17                               | 450   | 10x7.7              |
| 470              | 16   | 477AXZ016M     | 0.706                               | .17                               | 450   | 8x10.2              |
| 470              | 25   | 477AXZ025M     | 0.564                               | .09                               | 670   | 10x10.2             |
| 680              | 6.3  | 687AXZ6R3M     | 0.683                               | .17                               | 450   | 10x7.7              |
| 680              | 6.3  | 687AXZ6R3MD8   | 0.683                               | .17                               | 450   | 8x10.2              |
| 680              | 16   | 687AXZ016M     | 0.488                               | .09                               | 670   | 10x10.2             |
| 1000             | 6.3  | 108AXZ6R3M     | 0.464                               | .17                               | 450   | 8x10.2              |
| 1000             | 10   | 108AXZ010M     | 0.398                               | .09                               | 670   | 10x10.2             |
| 1500             | 6.3  | 158AXZ6R3M     | 0.31                                | .09                               | 670   | 10x10.2             |

## PHYSICAL DIMENSIONS

| WVDC (V) / Capacitance (μF) | 6.3 (8) | 10 (13) | 16 (20) | 25 (32) | 35 (44) |
|-----------------------------|---------|---------|---------|---------|---------|
| 4.7                         |         |         |         | →       | 4x6     |
| 10                          |         |         | →       | 4x6     | 5x6     |
| 15                          |         | →       | 4x6     | →       | 5x6     |
| 22                          | →       | 4x6     |         | →       | 5x6     |
| 33                          | →       | 5x6     |         | →       | 6.3x6   |
| 47                          | 5x6     |         |         | →       | 6.3x6   |
| 56                          | 5x6     |         | →       | 6.3x6   |         |
| 68                          |         |         | →       | 6.3x6   | 6.3x7.7 |
| 100                         |         | →       | 6.3x6   | 6.3x7.7 |         |
| 150                         | →       | 6.3x6   | 6.3x7.7 | →       | 8x10.2  |
| 150                         |         |         |         | →       | 10x7.7  |
| 220                         | 6.3x6   | →       | 6.3x7.7 | 10x7.7  | 8x10.2  |
| 330                         | 6.3x7.7 | →       | 10x7.7  | 8x10.2  | 10x10.2 |
| 470                         | →       | 10x7.7  | 8x10.2  | 10x10.2 |         |
| 680                         | 10x7.7  | →       | 10x10.2 |         |         |
| 680                         | 8x10.2  |         |         |         |         |
| 1000                        | 8x10.2  | 10x10.2 |         |         |         |
| 1500                        | 10x10.2 |         |         |         |         |

DxL (mm)

