

**AXW SERIES**
**◆FEATURES**

- Load Life : 105°C 2000 hours.
- Body diameter of  $\phi$  10mm to  $\phi$  18mm with high ripple current capability.
- This series is two classes smaller than the current MXW series.
- RoHS compliance.


**◆SPECIFICATIONS**

| Items                                      | Characteristics  |                    |                                   |                    |  |                 |                                    |      |     |
|--|--|--------------------|-----------------------------------|--------------------|--|-----------------|------------------------------------|------|-----|
| Category Temperature Range                 | -25~+105°C   |                    |                                   |                    |  |                 |                                    |      |     |
| Rated Voltage Range                        | 200~450V.DC  |                    |                                   |                    |  |                 |                                    |      |     |
| Capacitance Tolerance                      | ±20% (20°C, 120Hz)   |                    |                                   |                    |  |                 |                                    |      |     |
| Leakage Current(MAX)                       | $I=3\sqrt{CV}$ (After 5 minutes application of rated voltage)<br>$I$ =Leakage Current( $\mu$ A) $C$ =Rated Capacitance( $\mu$ F) $V$ =Rated Voltage(V)   |                    |                                   |                    |  |                 |                                    |      |     |
| Dissipation Factor(MAX)<br>(tan $\delta$ ) | <table border="1"> <thead> <tr> <th>Rated Voltage (V)</th> <th>200~250</th> <th>400</th> <th>420~450</th> </tr> </thead> <tbody> <tr> <td>tan <math>\delta</math></td> <td>0.12</td> <td>0.15</td> <td>0.2</td> </tr> </tbody> </table> (20°C, 120Hz)  | Rated Voltage (V)  | 200~250                           | 400                | 420~450                                    | tan $\delta$    | 0.12                               | 0.15 | 0.2 |
| Rated Voltage (V)                          | 200~250  | 400                | 420~450                           |                    |  |                 |                                    |      |     |
| tan $\delta$                               | 0.12   | 0.15               | 0.2                               |                    |  |                 |                                    |      |     |
| Endurance                                  | After applying rated voltage with rated ripple current for 2000hrs at 105°C, the capacitors shall meet the following requirements. <table border="1"> <tbody> <tr> <td>Capacitance Change</td> <td>Within ±20% of the initial value.</td> </tr> <tr> <td>Dissipation Factor</td> <td>Not more than 200% of the specified value.</td> </tr> <tr> <td>Leakage Current</td> <td>Not more than the specified value.</td> </tr> </tbody> </table> | Capacitance Change | Within ±20% of the initial value. | Dissipation Factor | Not more than 200% of the specified value. | Leakage Current | Not more than the specified value. |      |     |
| Capacitance Change                         | Within ±20% of the initial value.  |                    |                                   |                    |  |                 |                                    |      |     |
| Dissipation Factor                         | Not more than 200% of the specified value.   |                    |                                   |                    |  |                 |                                    |      |     |
| Leakage Current                            | Not more than the specified value.   |                    |                                   |                    |  |                 |                                    |      |     |
| Impedance Ratio(MAX)                       | <table border="1"> <thead> <tr> <th>Rated Voltage (V)</th> <th>200~250</th> <th>400~450</th> </tr> </thead> <tbody> <tr> <td>Z(-25°C)/Z(20°C)</td> <td>3</td> <td>8</td> </tr> </tbody> </table> (120Hz)   | Rated Voltage (V)  | 200~250                           | 400~450            | Z(-25°C)/Z(20°C)                           | 3               | 8                                  |      |     |
| Rated Voltage (V)                          | 200~250  | 400~450            |                                   |                    |  |                 |                                    |      |     |
| Z(-25°C)/Z(20°C)                           | 3  | 8                  |                                   |                    |  |                 |                                    |      |     |

**◆MULTIPLIER FOR RIPPLE CURRENT**

Frequency coefficient

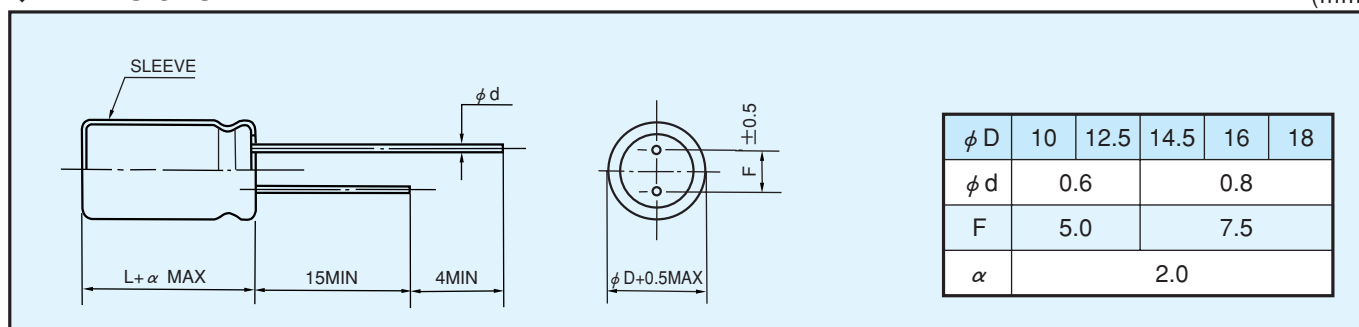
| Frequency (Hz) | 60(50)    | 120 | 500 | 1k   | 10k $\leq$ |      |
|----------------|-----------|-----|-----|------|------------|------|
| Coefficient    | 200~250WV | 0.8 | 1.0 | 1.20 | 1.30       | 1.40 |
|                | 400~450WV | 0.8 | 1.0 | 1.25 | 1.40       | 1.50 |

**◆PART NUMBER**

|               |        |                   |                       |        |              |           |
|---------------|--------|-------------------|-----------------------|--------|--------------|-----------|
| □□□           | AXW    | □□□□□             | □                     | □□□    | □□           | D×L       |
| Rated Voltage | Series | Rated Capacitance | Capacitance Tolerance | Option | Lead Forming | Case Size |

◆ DIMENSIONS

(mm)



◆ STANDARD SIZE, RATED RIPPLE CURRENT

| Cap<br>( $\mu F$ ) | WV<br>$\phi D$ | 200           |               |             |             |           | 220         |               |             |             |           |
|--------------------|----------------|---------------|---------------|-------------|-------------|-----------|-------------|---------------|-------------|-------------|-----------|
|                    |                | $\phi 10$     | $\phi 12.5$   | $\phi 14.5$ | $\phi 16$   | $\phi 18$ | $\phi 10$   | $\phi 12.5$   | $\phi 14.5$ | $\phi 16$   | $\phi 18$ |
| 56                 |                |               |               |             |             |           | 10×30; 0.29 |               |             |             |           |
| 68                 | 10×30; 0.35    |               |               |             |             |           | 10×35; 0.33 |               |             |             |           |
| 82                 | 10×35; 0.40    |               |               |             |             |           | 10×40; 0.37 |               |             |             |           |
| 100                | 10×40; 0.46    |               |               |             |             |           |             | 12.5×30; 0.43 |             |             |           |
| 120                |                | 12.5×30; 0.53 |               |             |             |           |             | 12.5×35; 0.49 |             |             |           |
| 150                |                | 12.5×35; 0.62 |               |             |             |           |             | 12.5×40; 0.58 |             |             |           |
| 180                |                | 12.5×40; 0.70 | 14.5×30; 0.66 |             |             |           |             | 14.5×35; 0.68 | 16×30; 0.67 |             |           |
| 220                |                |               | 14.5×35; 0.80 | 16×30; 0.76 | 18×30; 0.81 |           |             | 14.5×40; 0.78 | 16×35; 0.77 | 18×30; 0.77 |           |
| 270                |                |               | 14.5×40; 0.90 | 16×35; 0.88 | 18×30; 0.87 |           |             |               | 16×40; 0.88 | 18×35; 0.88 |           |
| 330                |                |               |               | 16×40; 1.10 | 18×35; 1.01 |           |             |               |             | 18×40; 1.01 |           |
| 390                |                |               |               |             | 18×40; 1.13 |           |             |               |             | 18×45; 1.13 |           |
| 470                |                |               |               |             | 18×45; 1.27 |           |             |               |             |             |           |

| Cap<br>( $\mu F$ ) | WV<br>$\phi D$ | 250           |               |             |             |           | 400         |               |               |             |           |
|--------------------|----------------|---------------|---------------|-------------|-------------|-----------|-------------|---------------|---------------|-------------|-----------|
|                    |                | $\phi 10$     | $\phi 12.5$   | $\phi 14.5$ | $\phi 16$   | $\phi 18$ | $\phi 10$   | $\phi 12.5$   | $\phi 14.5$   | $\phi 16$   | $\phi 18$ |
| 22                 |                |               |               |             |             |           | 10×30; 0.21 |               |               |             |           |
| 27                 |                |               |               |             |             |           | 10×35; 0.24 |               |               |             |           |
| 33                 |                |               |               |             |             |           | 10×40; 0.28 |               |               |             |           |
| 39                 |                |               |               |             |             |           |             | 12.5×30; 0.32 |               |             |           |
| 47                 | 10×30; 0.27    |               |               |             |             |           |             | 12.5×35; 0.37 |               |             |           |
| 56                 | 10×35; 0.30    |               |               |             |             |           |             | 12.5×40; 0.42 | 14.5×30; 0.42 |             |           |
| 68                 | 10×40; 0.35    |               |               |             |             |           |             | 14.5×35; 0.48 |               |             |           |
| 82                 |                | 12.5×30; 0.40 |               |             |             |           |             | 14.5×35; 0.52 | 16×30; 0.50   |             |           |
| 100                |                | 12.5×35; 0.46 |               |             |             |           |             |               | 16×35; 0.58   | 18×30; 0.58 |           |
| 120                |                | 12.5×40; 0.53 | 14.5×30; 0.53 |             |             |           |             |               | 16×40; 0.66   | 18×35; 0.67 |           |
| 150                |                |               | 14.5×35; 0.62 | 16×30; 0.62 |             |           |             |               |               | 18×40; 0.77 |           |
| 180                |                |               | 14.5×40; 0.72 | 16×35; 0.72 | 18×30; 0.72 |           |             |               |               | 18×45; 0.88 |           |
| 220                |                |               |               | 16×40; 0.83 | 18×35; 0.83 |           |             |               |               |             |           |
| 270                |                |               |               |             | 18×40; 0.95 |           |             |               |               |             |           |
| 330                |                |               |               |             | 18×45; 1.07 |           |             |               |               |             |           |

| Cap<br>( $\mu F$ ) | WV<br>$\phi D$ | 420           |               |             |             |           | 450         |               |               |             |           |
|--------------------|----------------|---------------|---------------|-------------|-------------|-----------|-------------|---------------|---------------|-------------|-----------|
|                    |                | $\phi 10$     | $\phi 12.5$   | $\phi 14.5$ | $\phi 16$   | $\phi 18$ | $\phi 10$   | $\phi 12.5$   | $\phi 14.5$   | $\phi 16$   | $\phi 18$ |
| 15                 |                |               |               |             |             |           | 10×30; 0.15 |               |               |             |           |
| 18                 | 10×30; 0.17    |               |               |             |             |           | 10×35; 0.18 |               |               |             |           |
| 22                 | 10×35; 0.20    |               |               |             |             |           | 10×40; 0.21 |               |               |             |           |
| 27                 | 10×40; 0.23    |               |               |             |             |           |             | 12.5×30; 0.25 |               |             |           |
| 33                 |                | 12.5×30; 0.27 |               |             |             |           |             | 12.5×35; 0.28 |               |             |           |
| 39                 |                | 12.5×35; 0.31 |               |             |             |           |             | 12.5×40; 0.32 | 14.5×30; 0.32 |             |           |
| 47                 |                | 12.5×40; 0.36 | 14.5×30; 0.36 |             |             |           |             | 14.5×35; 0.38 | 16×30; 0.38   |             |           |
| 56                 |                |               | 14.5×35; 0.43 | 16×30; 0.43 |             |           |             | 14.5×40; 0.44 | 16×35; 0.44   |             |           |
| 68                 |                |               | 14.5×40; 0.51 | 16×35; 0.51 | 18×30; 0.51 |           |             |               | 16×40; 0.49   | 18×30; 0.48 |           |
| 82                 |                |               |               | 16×40; 0.57 | 18×30; 0.57 |           |             |               |               | 18×35; 0.55 |           |
| 100                |                |               |               |             | 18×35; 0.61 |           |             |               |               | 18×40; 0.65 |           |
| 120                |                |               |               |             | 18×40; 0.66 |           |             |               |               | 18×45; 0.74 |           |

Please check with us about individual WV, Cap., size and dimensions.

Size  $\phi D \times L$ (mm)  
Ripple Current (A r.m.s./105°C, 120Hz)