



MINIATURE ALUMINUM ELECTROLYTIC CAPACITORS

ZAV

ZAV SERIES

Previous Series

105°C Ultra Low Impedance.

◆ FEATURES

- Extremely reduced impedance at high frequency range.
- Reflow soldering is available.
- Load Life : 105°C 1000 hours.



◆ SPECIFICATIONS

| Items | Characteristics | | | | | | | | | | | | | | |
|------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|-----------------------------------|--------------------|--------------------------------------------|-----------------|------------------------------------|--------------|------------------|------|------|------|------|------|--|
| Category Temperature Range | -40~+105°C | | | | | | | | | | | | | | |
| Rated Voltage Range | 6.3~35V.DC | | | | | | | | | | | | | | |
| Capacitance Tolerance | ±20%(20°C,120Hz) | | | | | | | | | | | | | | |
| Leakage Current(MAX) | I=0.01CV or 3μA whichever is greater. (After 2 minutes application of rated voltage) I=Leakage Current(μA) C=Rated Capacitance(μF) V=Rated Voltage(V) | | | | | | | | | | | | | | |
| Dissipation Factor(MAX) | <table border="1"> <tr> <td>Rated Voltage (V)</td> <td>6.3</td> <td>10</td> <td>16</td> <td>25</td> <td>35</td> <td>(20°C,120Hz)</td> </tr> <tr> <td>tanδ</td> <td>0.15</td> <td>0.13</td> <td>0.12</td> <td>0.10</td> <td>0.10</td> <td></td> </tr> </table> | Rated Voltage (V) | 6.3 | 10 | 16 | 25 | 35 | (20°C,120Hz) | tanδ | 0.15 | 0.13 | 0.12 | 0.10 | 0.10 | |
| Rated Voltage (V) | 6.3 | 10 | 16 | 25 | 35 | (20°C,120Hz) | | | | | | | | | |
| tanδ | 0.15 | 0.13 | 0.12 | 0.10 | 0.10 | | | | | | | | | | |
| Endurance | <p>After applying rated voltage with rated ripple current for 1000 hrs at 105°C, the capacitors shall meet the following requirements.</p> <table border="1"> <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> </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. | | | | | | | | | | | | | | |
| Low Temperature Stability Impedance Ratio(MAX) | <table border="1"> <tr> <td>Rated Voltage (V)</td> <td>6.3</td> <td>10</td> <td>16</td> <td>25</td> <td>35</td> <td>(120Hz)</td> </tr> <tr> <td>Z(-40°C)/Z(20°C)</td> <td>3</td> <td>3</td> <td>3</td> <td>3</td> <td>3</td> <td></td> </tr> </table> | Rated Voltage (V) | 6.3 | 10 | 16 | 25 | 35 | (120Hz) | Z(-40°C)/Z(20°C) | 3 | 3 | 3 | 3 | 3 | |
| Rated Voltage (V) | 6.3 | 10 | 16 | 25 | 35 | (120Hz) | | | | | | | | | |
| Z(-40°C)/Z(20°C) | 3 | 3 | 3 | 3 | 3 | | | | | | | | | | |

◆ MULTIPLIER FOR RIPPLE CURRENT

Frequency coefficient

| Frequency (Hz) | | 120 | 1k | 10k | 100k≤ |
|----------------|-----------|------|------|------|-------|
| Coefficient | 4.7~10μF | 0.15 | 0.40 | 0.75 | 1.00 |
| | 15~33μF | 0.20 | 0.50 | 0.80 | 1.00 |
| | 47~100μF | 0.25 | 0.60 | 0.90 | 1.00 |
| | 120~220μF | 0.35 | 0.70 | 0.92 | 1.00 |
| | 330~470μF | 0.45 | 0.75 | 0.95 | 1.00 |

◆ PART NUMBER

 ZAV **DxL**
 Rated Voltage Series Rated Capacitance Capacitance Tolerance Option Case Size

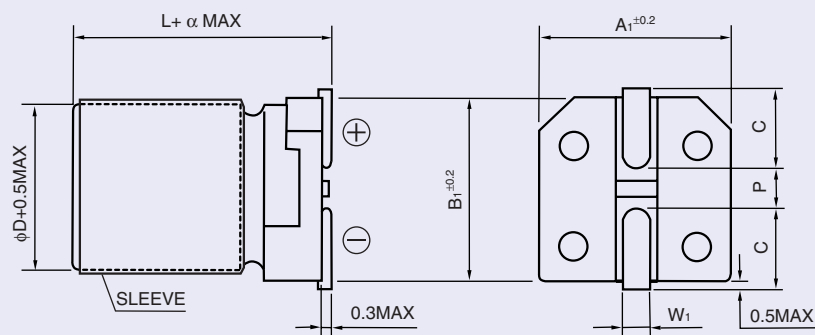


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◆ **DIMENSIONS**

(mm)



| φD | L | A ₁ | B ₁ | C | W ₁ | P | α |
|-----|----|----------------|----------------|-----|----------------|-----|-----|
| 4 | 7 | 4.3 | 4.3 | 2.0 | 0.5~0.8 | 0.8 | 0.3 |
| 5 | 7 | 5.3 | 5.3 | 2.2 | 0.5~0.8 | 1.3 | 0.3 |
| 6.3 | 7 | 6.6 | 6.6 | 2.7 | 0.5~0.8 | 1.8 | 0.3 |
| 8 | 12 | 8.3 | 8.3 | 2.9 | 0.8~1.1 | 3.1 | 0.5 |

◆ **STANDARD SIZE**

| Rated voltage (V.DC) | Rated capacitance (μF) | Size φDXL(mm) | Rated ripple current (mA r.m.s./105°C, 100kHz) | Impedance (ΩMAX/20°C, 100kHz) |
|----------------------|------------------------|---------------|------------------------------------------------|-------------------------------|
| 6.3(0J) | 22 | 4X7 | 150 | 0.68 |
| | 47 | 5X7 | 230 | 0.36 |
| | 100 | 6.3X7 | 310 | 0.20 |
| | 470 | 8X12 | 930 | 0.053 |
| 10(1A) | 15 | 4X7 | 150 | 0.70 |
| | 33 | 5X7 | 230 | 0.36 |
| | 56 | 6.3X7 | 310 | 0.21 |
| | 330 | 8X12 | 930 | 0.054 |
| 16(1C) | 10 | 4X7 | 150 | 0.72 |
| | 22 | 5X7 | 230 | 0.38 |
| | 47 | 6.3X7 | 310 | 0.21 |
| | 180 | 8X12 | 930 | 0.055 |
| 25(1E) | 6.8 | 4X7 | 150 | 0.79 |
| | 15 | 5X7 | 230 | 0.39 |
| | 27 | 6.3X7 | 310 | 0.22 |
| | 120 | 8X12 | 930 | 0.057 |
| 35(1V) | 4.7 | 4X7 | 150 | 0.85 |
| | 8.2 | 5X7 | 230 | 0.46 |
| | 18 | 6.3X7 | 310 | 0.25 |
| | 82 | 8X12 | 930 | 0.058 |