

SGV SERIES

UPGRADE

105°C Standard

- Load Life : 105°C 2000~5000 hours.
- AEC-Q200.
- High Temperature Reflow soldering is available. (JGV series)
(http://www.rubycon.co.jp/catalog/j_pdfs/aluminum/j_JGV.pdf)



RoHS compliance



SPECIFICATIONS

| Items | Characteristics | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|--|--|---------------------|------|------|------|------|------|---------|-----|-----|---------|-----|-----|------------------|------|------|------|------|------|------|---|---|---|---|---|------------------|------|------|------|------|------|------|------|------|------|------|---|
| Category Temperature Range | -55~+105°C | -40~+105°C | -25~+105°C | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Rated Voltage Range | 6.3~50Vdc | 63, 100Vdc | 160~450Vdc | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Capacitance Tolerance | ±20% (20°C, 120Hz) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Leakage Current(MAX) | 6.3~100Vdc | | 160~450Vdc | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | I=0.01CV or 3μA whichever is greater. (After 2 minutes application of rated voltage) | | I=0.04CV+100μA (1minute) I=0.02CV+25μA (5minutes) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | I=Leakage Current(μA) C=Capacitance(μF) V=Rated Voltage(Vdc) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Dissipation Factor(MAX) (tanδ) | <table border="1"> <thead> <tr> <th>Rated Voltage (Vdc)</th> <th>6.3</th> <th>10</th> <th>16</th> <th>25</th> <th>35</th> <th>50</th> <th>63</th> <th>100</th> <th>160~250</th> <th>400</th> <th>450</th> </tr> </thead> <tbody> <tr> <td>φ4,φ5,φ6.3×6.1</td> <td>0.30</td> <td>0.24</td> <td>0.20</td> <td>0.16</td> <td>0.14</td> <td>0.12</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> </tr> <tr> <td>φ6.3×8,φ8~φ18</td> <td>0.35</td> <td>0.26</td> <td>0.24</td> <td>0.18</td> <td>0.14</td> <td>0.12</td> <td>0.12</td> <td>0.10</td> <td>0.15</td> <td>0.20</td> <td>-</td> </tr> </tbody> </table> | | | Rated Voltage (Vdc) | 6.3 | 10 | 16 | 25 | 35 | 50 | 63 | 100 | 160~250 | 400 | 450 | φ4,φ5,φ6.3×6.1 | 0.30 | 0.24 | 0.20 | 0.16 | 0.14 | 0.12 | - | - | - | - | - | φ6.3×8,φ8~φ18 | 0.35 | 0.26 | 0.24 | 0.18 | 0.14 | 0.12 | 0.12 | 0.10 | 0.15 | 0.20 | - |
| | Rated Voltage (Vdc) | 6.3 | 10 | 16 | 25 | 35 | 50 | 63 | 100 | 160~250 | 400 | 450 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| φ4,φ5,φ6.3×6.1 | 0.30 | 0.24 | 0.20 | 0.16 | 0.14 | 0.12 | - | - | - | - | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| φ6.3×8,φ8~φ18 | 0.35 | 0.26 | 0.24 | 0.18 | 0.14 | 0.12 | 0.12 | 0.10 | 0.15 | 0.20 | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| When rated capacitance is over 1000μF, tanδ shall be added 0.02 to the listed value with increase of every 1000μF. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Endurance | After applying rated voltage with rated ripple current for specified time at 105°C, the capacitors shall meet the following requirements. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Capacitance Change | Within ±25% of the initial value. | Rated Voltage (Vdc) | Life Time (hrs) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Dissipation Factor | Not more than 200% of the specified value. | 6.3~100 | 2000 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Leakage Current | Not more than the specified value. | 160~450 | 5000 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Low Temperature Stability Impedance Ratio(MAX) | <table border="1"> <thead> <tr> <th>Rated Voltage (Vdc)</th> <th>6.3</th> <th>10</th> <th>16</th> <th>25</th> <th>35</th> <th>50</th> <th>63</th> <th>100</th> <th>160~250</th> <th>400</th> <th>450</th> </tr> </thead> <tbody> <tr> <td>Z(-25°C)/Z(20°C)</td> <td>4</td> <td>3</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> <td>3</td> <td>6</td> <td>-</td> </tr> <tr> <td>Z(-40°C)/Z(20°C)</td> <td>8</td> <td>8</td> <td>4</td> <td>4</td> <td>3</td> <td>3</td> <td>5</td> <td>5</td> <td>-</td> <td>-</td> <td>-</td> </tr> </tbody> </table> | | | Rated Voltage (Vdc) | 6.3 | 10 | 16 | 25 | 35 | 50 | 63 | 100 | 160~250 | 400 | 450 | Z(-25°C)/Z(20°C) | 4 | 3 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 6 | - | Z(-40°C)/Z(20°C) | 8 | 8 | 4 | 4 | 3 | 3 | 5 | 5 | - | - | - |
| | Rated Voltage (Vdc) | 6.3 | 10 | 16 | 25 | 35 | 50 | 63 | 100 | 160~250 | 400 | 450 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Z(-25°C)/Z(20°C) | 4 | 3 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 6 | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Z(-40°C)/Z(20°C) | 8 | 8 | 4 | 4 | 3 | 3 | 5 | 5 | - | - | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | (120Hz) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

MULTIPLIER FOR RIPPLE CURRENT

| Frequency (Hz) | 60(50) | 120 | 500 | 1k | 10k≦ | |
|----------------|-------------|------|------|------|------|------|
| Coefficient | 0.47~1μF | 0.50 | 1.00 | 1.20 | 1.30 | 1.50 |
| | 2.2~6.8μF | 0.65 | 1.00 | 1.20 | 1.30 | 1.50 |
| | 10~68μF | 0.80 | 1.00 | 1.20 | 1.30 | 1.50 |
| | 100~1000μF | 0.80 | 1.00 | 1.10 | 1.15 | 1.20 |
| | 2200~6800μF | 0.80 | 1.00 | 1.05 | 1.10 | 1.15 |

PART NUMBER

□□□ / SGV / □□□□□ / M / □□□ / D×L
 Rated Voltage Series Capacitance Capacitance Tolerance Option Case Size

DIMENSIONS

(mm)

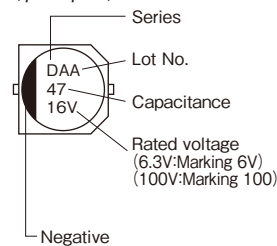
| φD | L | A1 | B1 | C | W1 | P | K | α |
|------|------|------|------|-----|---------|-----|---------|-----|
| 4 | 6.1 | 4.3 | 4.3 | 1.8 | 0.5~0.8 | 1.0 | 0.5 MAX | 0 |
| 5 | 6.1 | 5.3 | 5.3 | 2.2 | 0.5~0.8 | 1.3 | 0.5 MAX | 0 |
| 6.3 | 6.1 | 6.6 | 6.6 | 2.7 | 0.5~0.8 | 1.8 | 0.5 MAX | 0 |
| 6.3 | 8 | 6.6 | 6.6 | 2.7 | 0.5~0.8 | 1.8 | 0.5 MAX | 0 |
| 8 | 6.5 | 8.3 | 8.3 | 3.4 | 0.5~0.8 | 2.2 | 0.5 MAX | 0 |
| 8 | 10.5 | 8.3 | 8.3 | 2.9 | 0.8~1.1 | 3.1 | 0.5 MAX | ※1 |
| 10 | 10.5 | 10.3 | 10.3 | 3.2 | 0.8~1.1 | 4.5 | 0.5 MAX | ※1 |
| 12.5 | 13.5 | 13 | 13 | 4.9 | 0.8~1.1 | 4.5 | 0.7±0.4 | 0.5 |
| 12.5 | 16 | 13 | 13 | 4.9 | 0.8~1.1 | 4.5 | 0.7±0.4 | 0.5 |
| 16 | 16.5 | 17 | 17 | 6 | 1.0~1.6 | 6.8 | 0.7±0.4 | 0.5 |
| 16 | 21.5 | 17 | 17 | 6 | 1.0~1.6 | 6.8 | 0.7±0.4 | 0.5 |
| 18 | 16.5 | 19 | 19 | 7 | 1.0~1.6 | 6.8 | 0.7±0.4 | 0.5 |
| 18 | 21.5 | 19 | 19 | 7 | 1.0~1.6 | 6.8 | 0.7±0.4 | 0.5 |

※1: α dimensions

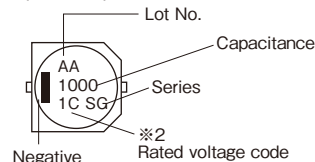
| Rated Voltage | α |
|---------------|-----|
| 6.3~100 | 0 |
| 160~400 | 0.2 |

MARKING

〈φ4~φ10〉



〈φ12.5~φ18〉



※2 Voltage code

| Rated Voltage (Vdc) | 6.3 | 10 | 16 | 25 | 35 | 50 | 63 | 100 | 160 | 200 | 250 | 400 | 450 |
|---------------------|-----|----|----|----|----|----|----|-----|-----|-----|-----|-----|-----|
| Rated Voltage code | 0J | 1A | 1C | 1E | 1V | 1H | 1J | 2A | 2C | 2D | 2E | 2G | 2W |

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[RC0J476M05005VR](#) [RC1A227M08010VR](#) [RC1C226M05005VR](#) [RC1C476M6L005VR](#) [RC1E107M6L07KVR](#) [RC1E336M6L005VR](#)
[RC1H106M6L005VR](#) [RC1H475M05005VR](#) [RC1V227M10010VR](#) [RC1V476M6L006VR](#) [50SEV1M4X5.5](#) [TYEH1A336E55MTR](#)
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[SC1H106M6L005VR](#) [SC1H227M10010VR](#) [SC1H335M04005VR](#) [CE4.7/50-SMD](#) [VEJ4R7M1VTR-0406](#) [VZH331M1ETR-0810](#)
[VES101M1CTR-0605](#) [TYEH1H475E55MTR](#) [6.3SEV22M4X5.5](#) [6.3SEV47M4X5.5](#) [EEEFK1H151GP](#) [EEEFK1A681GP](#) [EEE0GA471XP](#)
[EEEFK1V151GP](#) [RC1V107M6L07KVR](#) [VZH101M1VTR-0810](#) [VE010M1HTR-0405](#) [GYA1V151MCQ1GS](#) [EEH-ZC1J680P](#) [EEH-](#)
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