# SGV SERIES

UPGRADE

## 105℃ Standard

- Load Life : 105℃ 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℃ | −40～+105℃ | −25～+105℃ |
| Rated Voltage Range | 6.3～50Vdc | 63, 100Vdc | 160～450Vdc |
| Capacitance Tolerance | ±20%(20℃,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) (20℃,120Hz)

| Rated Voltage (Vdc) | | 6.3 | 10 | 16 | 25 | 35 | 50 | 63 | 100 | 160～250 | 400 450 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| tanδ | 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℃, the capacitors shall meet the following requirements.

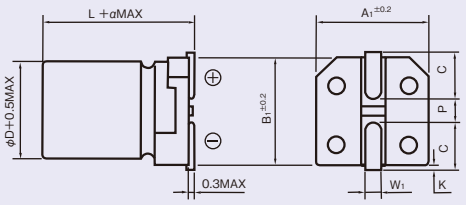
| | |
|---|---|
| Capacitance Change | Within ±25% of the initial value. |
| Dissipation Factor | Not more than 200% of the specified value. |
| Leakage Current | Not more than the specified value. |

| Rated Voltage (Vdc) | Life Time (hrs) |
|---|---|
| 6.3～100 | 2000 |
| 160～450 | 5000 |

Low Temperature Stability Impedance Ratio(MAX) (120Hz)

| Rated Voltage (Vdc) | 6.3 | 10 | 16 | 25 | 35 | 50 | 63 | 100 | 160～250 | 400 450 |
|---|---|---|---|---|---|---|---|---|---|---|
| Z(−25℃)/Z(20℃) | 4 | 3 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 6 |
| Z(−40℃)/Z(20℃) | 8 | 8 | 4 | 4 | 3 | 3 | 5 | 5 | − | − |

## ◆DIMENSIONS (mm)



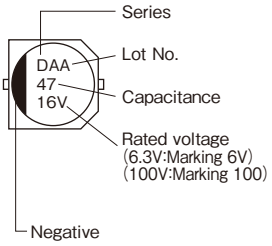

| φD | L | A1 | B1 | C | W1 | P | K | α |
|---|---|---|---|---|---|---|---|---|
| 4 | 6.1 | 4.3 | 4.3 | 1.8 | 0.5～0.8 | 1.0 | 0.5 MAX | 0 |
| 5 | 6.1 | 5.3 | 5.3 | 2.2 | 0.5～0.8 | 1.3 | 0.5 MAX | 0 |
| 6.3 | 6.1 | 6.6 | 6.6 | 2.7 | 0.5～0.8 | 1.8 | 0.5 MAX | 0 |
| 6.3 | 8 | 6.6 | 6.6 | 2.7 | 0.5～0.8 | 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

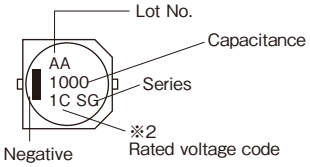
| Rated Voltage | α |
|---|---|
| 6.3～100 | 0 |
| 160～400 | 0.2 |

## ◆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 |

## ◆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

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

## ◆STANDARD SIZE

Size φD×L(mm), Rated Ripple Current (mA r.m.s./105℃, 120Hz)

| Vdc | Cap (μF) | Size (φDXL) | Ripple |
|---|---|---|---|
| 6.3 | 22 | 4×6.1 | 26 |
| | 33 | 4×6.1 | 29 |
| | 47 | 5×6.1 | 46 |
| | 100 | 6.3×6.1 | 71 |
| | 220 | 6.3×8 | 121 |
| | 470 | 8×10.5 | 210 |
| | 1000 | 10×10.5 | 495 |
| | | 12.5×13.5 | |
| | 2200 | 12.5×16 | 750 |
| | 3300 | 16×21.5 | 930 |
| | | 18×16.5 | |
| | 4700 | 18×21.5 | 1200 |
| | 6800 | 18×21.5 | 1350 |
| 10 | 33 | 5×6.1 | 43 |
| | 100 | 6.3×6.1 | 71 |
| | 330 | 8×10.5 | 195 |
| | 470 | 8×10.5 | 210 |
| | | 10×10.5 | 440 |
| | 1000 | 12.5×16 | 500 |
| | 2200 | 16×16.5 | 810 |
| | 3300 | 16×21.5 | 1000 |
| | | 18×16.5 | |
| | 4700 | 18×21.5 | 1200 |
| 16 | 10 | 4×6.1 | 28 |
| | 22 | 5×6.1 | 39 |
| | 47 | 6.3×6.1 | 70 |
| | 100 | 6.3×8 | 111 |
| | 220 | 8×10.5 | 185 |
| | 330 | 8×10.5 | 290 |
| | | 10×10.5 | 440 |
| | 470 | 8×10.5 | 320 |
| | | 10×10.5 | 460 |
| | 1000 | 16×16.5 | 630 |
| | 2200 | 16×21.5 | 930 |
| | | 18×16.5 | |
| | 3300 | 18×21.5 | 1150 |
| 25 | 33 | 6.3×6.1 | 65 |
| | 47 | 6.3×8 | 79 |
| | | 8×6.5 | 91 |
| | 100 | 8×10.5 | 180 |
| | 220 | 8×10.5 | 320 |
| | | 10×10.5 | 355 |
| | 330 | 10×10.5 | 450 |
| | | 12.5×13.5 | |
| | 470 | 10×10.5 | 490 |
| | 1000 | 16×21.5 | 700 |
| | | 18×16.5 | |
| | 2200 | 18×21.5 | 1050 |
| | 3300 | 18×21.5 | 1700 |

| Vdc | Cap (μF) | Size (φDXL) | Ripple |
|---|---|---|---|
| 35 | 4.7 | 4×6.1 | 15 |
| | 10 | 5×6.1 | 28 |
| | 22 | 6.3×6.1 | 55 |
| | 33 | 6.3×8 | 76 |
| | | 8×6.5 | 84 |
| | 100 | 8×10.5 | 180 |
| | | 10×10.5 | 305 |
| | 220 | 10×10.5 | 450 |
| | | 12.5×13.5 | |
| | 330 | 12.5×16 | 460 |
| | 470 | 16×16.5 | 490 |
| | 1000 | 16×21.5 | 750 |
| | | 18×16.5 | |
| 50 | 0.47 | 4×6.1 | 4 |
| | 1 | 4×6.1 | 8 |
| | 2.2 | 4×6.1 | 11 |
| | 3.3 | 4×6.1 | 14 |
| | 4.7 | 5×6.1 | 19 |
| | 10 | 6.3×6.1 | 35 |
| | 22 | 6.3×8 | 67 |
| | | 8×6.5 | 70 |
| | 33 | 8×10.5 | 140 |
| | 47 | 8×10.5 | 167 |
| | | 10×10.5 | 180 |
| | 100 | 8×10.5 | 230 |
| | | 10×10.5 | 315 |
| | 220 | 12.5×16 | 380 |
| | 330 | 16×16.5 | 470 |
| | 470 | 16×21.5 | 550 |
| | | 18×16.5 | |
| | 1000 | 18×21.5 | 820 |
| 63 | 22 | 8×10.5 | 55 |
| | 33 | 8×10.5 | 115 |
| | 47 | 8×10.5 | 120 |
| | 100 | 12.5×16 | 225 |
| | 220 | 16×16.5 | 385 |
| | 330 | 16×21.5 | 490 |
| | | 18×16.5 | |
| | 470 | 18×21.5 | 590 |
| 100 | 10 | 8×10.5 | 65 |
| | 22 | 10×10.5 | 90 |
| | 33 | 10×10.5 | 135 |
| | 47 | 12.5×13.5 | 160 |
| | 100 | 16×16.5 | 285 |
| | 220 | 16×21.5 | 440 |
| | | 18×16.5 | |

| Vdc | Cap (μF) | Size (φDXL) | Ripple |
|---|---|---|---|
| 160 | 12 | 8×10.5 | 115 |
| | 22 | 10×10.5 | 150 |
| | 39 | 12.5×13.5 | 250 |
| | 47 | 12.5×16 | 310 |
| | 68 | 16×16.5 | 400 |
| | 100 | 18×16.5 | 480 |
| | 120 | 16×21.5 | 560 |
| | 150 | 18×21.5 | 690 |
| 200 | 10 | 8×10.5 | 100 |
| | 15 | 10×10.5 | 130 |
| | 33 | 12.5×13.5 | 230 |
| | 42 | 12.5×16 | 270 |
| | 56 | 16×16.5 | 350 |
| | 68 | 18×16.5 | 440 |
| | 100 | 16×21.5 | 500 |
| | 120 | 18×21.5 | 620 |
| 250 | 6.8 | 8×10.5 | 85 |
| | 12 | 10×10.5 | 115 |
| | 22 | 12.5×13.5 | 190 |
| | 33 | 12.5×16 | 240 |
| | 47 | 16×16.5 | 320 |
| | 56 | 18×16.5 | 400 |
| | 68 | 16×21.5 | 450 |
| | 100 | 18×21.5 | 560 |
| 400 | 2.7 | 8×10.5 | 45 |
| | 4.7 | 10×10.5 | 75 |
| | 10 | 12.5×13.5 | 135 |
| | 12 | 12.5×16 | 165 |
| | 18 | 16×16.5 | 220 |
| | 22 | 18×16.5 | 280 |
| | 33 | 16×21.5 | 320 |
| | 47 | 18×21.5 | 400 |
| 450 | 6.8 | 12.5×13.5 | 110 |
| | 8.2 | 12.5×16 | 150 |
| | 12 | 16×16.5 | 195 |
| | 18 | 18×16.5 | 245 |
| | 22 | 16×21.5 | 275 |
| | 27 | 18×21.5 | 345 |

# Mouser Electronics

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Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
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- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits,General Dynamics и др.);

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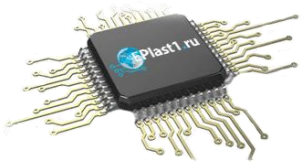


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**Факс:** 8 (812) 320-02-42
**Электронная почта:** org@eplast1.ru
**Адрес:** 198099, г. Санкт-Петербург, ул. Калинина, дом 2, корпус 4, литера А.