

# SVV series

- Low ESR, Anti-vibration, Peak acceleration: 30G
- High Voltage, Long Life.
- 105°C, 10,000hrs.
- RoHS compliant
- For high reliability applications.(Automotive equipment,Base station equipment,etc.)



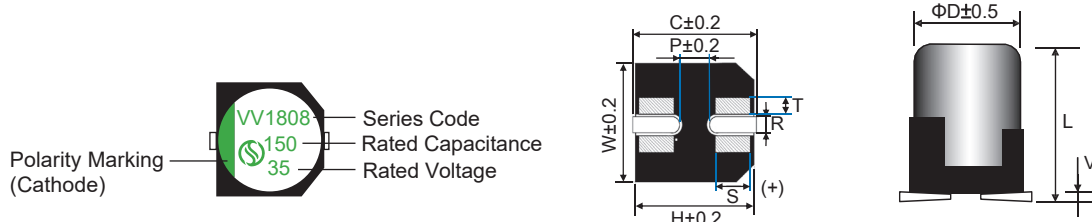
SVV

## SPECIFICATIONS

| Items                      | Conditions  | Characteristics  |
|----------------------------|---|--|
| Category Temperature Range | —   | -55 to +105°C  |
| Rated Voltage Range        | —   | 16 ~ 125V  |
| Capacitance Tolerance      | at 20°C,120Hz   | ±20%(M)  |
| Surge Voltage              | at 15 ~ 35°C  | Rated voltage × 1.25V  |
| Leakage Current            | at 20°C after 2 minutes   | $I \leq 0.01CV$ or $3(\mu A)$ Whichever is greater measured,after 2 minutes application of rated working voltage at +20°C.<br>Please see the attached characteristics list |
| Dissipation Factor (tan δ) | at 20°C,120Hz   | Please see the attached characteristics list   |
| Endurance                  | The following specifications shall be satisfied when the capacitors are restored to 20°C after the rated voltage is applied for 10,000 hours at 105°C.  | Appearance NO significant damage.  |
|                            |   | Capacitance change $\leq \pm 30\%$ of the initial value.   |
|                            |   | DF ( tan δ) $\leq 200\%$ of the initial specified value.   |
|                            |   | ESR $\leq 200\%$ of the initial specified value.   |
|                            |   | Leakage current $\leq$ The initial specified value.  |
| Damp Heag (Steady State)   | The following specifications shall be satisfied when the capacitors are restored to 20°C after subjecting them to subjecting them to store at 60°C, 90 to 95% RH for 1,000 hours, without DC applied.                   | Appearance NO significant damage.  |
|                            |   | Capacitance change $\leq \pm 30\%$ of the initial value.   |
|                            |   | DF ( tan δ) $\leq 200\%$ of the initial specified value.   |
|                            |   | ESR $\leq 200\%$ of the initial specified value.   |
|                            |   | Leakage current $\leq$ The initial specified value.  |
| Surge Voltage              | The capacitors shall be subjected to 1,000 cycles each consisting of charge with the surge voltages specified at 15~35°C for 30 seconds through aprotective resistor (R = 1 kΩ) and discharge for 5 minutes 30 seconds. | Appearance NO significant damage.  |
|                            |   | Capacitance change $\leq \pm 30\%$ of the initial value.   |
|                            |   | DF ( tan δ) $\leq 200\%$ of the initial specified value.   |
|                            |   | ESR $\leq 200\%$ of the initial specified value.   |
|                            |   | Leakage current $\leq$ The initial specified value.  |

※ Note : If any doubt arises, measure the leakage current after following voltage treatment.  
Voltage treatmen : DC rated voltage are applied to the capacitors for 120 minutes at 105°C.

## MARKING AND DIMENSIONS



(Unit:mm)

| Size  | D <sup>±0.5</sup> | L <sup>±0.5</sup> | W <sup>±0.2</sup> | H <sup>±0.2</sup> | C <sup>±0.2</sup> | R        | P <sup>±0.2</sup> | S <sup>±0.2</sup> | T <sup>±0.2</sup> | V <sup>max</sup> |
|-------|-------------------|-------------------|-------------------|-------------------|-------------------|----------|-------------------|-------------------|-------------------|------------------|
| 10×10 | 10                | 10.5              | 10.3              | 10.3              | 11.0              | 1.0to1.4 | 4.5               | 0.7               | 1.6               | 0.3              |
| 10×12 | 10                | 12.5              | 10.3              | 10.3              | 11.0              | 1.0to1.4 | 4.5               | 0.7               | 1.6               | 0.3              |

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**SVV SERIES STANRD CHARACTERISITICS LIST**

| Rated voltage (S.V.) | Cap (μF) | Size Code DxL | Leakage current (μA) max. | ESR (mΩ) max. 100k to 300kHz / 20°C | Rated Ripple Current (mA rms) 100kHz / 105°C | D.F. (tanδ) max. 120Hz / 20°C |
|----------------------|----------|---------------|---------------------------|-------------------------------------|--|-------------------------------|
| 16 (20)              | 470      | 10×10         | 75                        | 21                                  | 2,600  | 0.16                          |
|                      | 560      | 10×12         | 90                        | 15                                  | 3,000  | 0.16                          |
| 25 (32)              | 270      | 10×10         | 68                        | 22                                  | 2,500  | 0.16                          |
|                      | 330      | 10×12         | 83                        | 16                                  | 2,900  | 0.16                          |
| 35 (44)              | 150      | 10×10         | 53                        | 23                                  | 2,400  | 0.16                          |
|                      | 220      | 10×12         | 77                        | 17                                  | 2,800  | 0.16                          |
| 40 (50)              | 100      | 10×10         | 40                        | 24                                  | 2,400  | 0.16                          |
|                      | 120      | 10×12         | 48                        | 18                                  | 2,700  | 0.16                          |
| 50 (63)              | 56       | 10×10         | 28                        | 25                                  | 2,300  | 0.16                          |
|                      | 82       | 10×12         | 41                        | 19                                  | 2,600  | 0.16                          |
| 63 (79)              | 33       | 10×10         | 21                        | 30                                  | 2,100  | 0.16                          |
|                      | 47       | 10×10         | 30                        | 30                                  | 2,100  | 0.16                          |
|                      | 56       | 10×12         | 35                        | 22                                  | 2,400  | 0.16                          |
| 80 (100)             | 12       | 10×10         | 10                        | 70                                  | 1,600  | 0.16                          |
|                      | 15       | 10×10         | 12                        | 70                                  | 1,600  | 0.16                          |
|                      | 18       | 10×12         | 14                        | 50                                  | 1,800  | 0.16                          |
| 100 (125)            | 10       | 10×10         | 10                        | 80                                  | 1,400  | 0.16                          |
|                      | 12       | 10×10         | 12                        | 80                                  | 1,400  | 0.16                          |
|                      | 15       | 10×12         | 15                        | 60                                  | 1,600  | 0.16                          |
| 125 (157)            | 10       | 10×10         | 13                        | 90                                  | 1,200  | 0.16                          |

**Frequency Coefficient of Permissible Ripple Current**

| Capacitance (μF) | Frequency (Hz) |              |                |          |
|------------------|----------------|--------------|----------------|----------|
|                  | 100 ≦ F < 1K   | 1K ≦ F < 10K | 10K ≦ F < 100K | 100K ≦ F |
| 4.7 < C ≦ 33     | 0.05           | 0.32         | 0.67           | 1.00     |
| 33 < C           | 0.10           | 0.35         | 0.70           | 1.00     |