



## TYPE SGV @85°C

### S SERIES

S U R F A C E

M O U N T

A L U M I N U M

C A P A C I T O R S

#### SPECIFICATIONS

- Temperature Range: -40 ~ +85°C
- Rated Voltage Range: 4 ~ 50 VDC
- Capacitance Tolerance: ±20%
- Capacitance Range: .1 ~ 1000µF
- Size Range: 3.0mm ~ 10.0mm diameter  
5.4mm ~ 10.2mm
- Load Life - 2000 Hours @ 85°C



| Part Number  | Cap<br>µF | Voltage | Max ripple<br>current<br>mA/85°C<br>120Hz | Max ESR<br>Ohms<br>120Hz<br>20°C | Max LC<br>µA<br>for 2<br>minutes | Size<br>(mm)<br>Dia | Size<br>(mm)<br>L |
|--------------|-----------|---------|-------------------------------------------|----------------------------------|----------------------------------|---------------------|-------------------|
| SGV220M004RT | 22        | 4       | 19.00                                     | 21.10                            | 3.0                              | 3.0                 | 5.4               |
| SGV330M004RT | 33        | 4       | 26.00                                     | 14.00                            | 3.0                              | 4.0                 | 5.4               |
| SGV470M004RT | 47        | 4       | 34.00                                     | 9.87                             | 3.0                              | 4.0                 | 5.4               |
| SGV101M004RT | 100       | 4       | 61.00                                     | 4.64                             | 4.0                              | 5.0                 | 5.4               |
| SGV221M004RT | 220       | 4       | 82.00                                     | 2.11                             | 8.8                              | 6.3                 | 5.4               |
| SGV220M6R3RT | 22        | 6.3     | 20.00                                     | 15.60                            | 3.0                              | 4.0                 | 5.4               |
| SGV330M6R3RT | 33        | 6.3     | 22.00                                     | 14.00                            | 3.0                              | 5.0                 | 5.4               |
| SGV470M6R3RT | 47        | 6.3     | 46.00                                     | 7.33                             | 3.0                              | 5.0                 | 5.4               |
| SGV101M6R3ST | 100       | 6.3     | 71.00                                     | 3.44                             | 6.3                              | 6.3                 | 5.4               |
| SGV221M6R3RT | 220       | 6.3     | 250.00                                    | 2.11                             | 13.9                             | 8.0                 | 6.2               |
| SGV331M6R3RT | 330       | 6.3     | 300.00                                    | 1.40                             | 20.9                             | 8.0                 | 6.2               |
| SGV471M6R3RT | 470       | 6.3     | 380.00                                    | 0.98                             | 29.6                             | 8.0                 | 10.2              |
| SGV102M6R3RT | 1000      | 6.3     | 700.00                                    | 0.46                             | 63.0                             | 10.0                | 10.2              |
| SGV220M010RT | 22        | 10      | 28.00                                     | 18.00                            | 3.0                              | 4.0                 | 5.4               |
| SGV330M010RT | 33        | 10      | 43.00                                     | 8.03                             | 3.3                              | 5.0                 | 5.4               |
| SGV470M010RT | 47        | 10      | 43.00                                     | 8.46                             | 4.7                              | 5.0                 | 5.4               |
| SGV101M010RT | 100       | 10      | 71.00                                     | 3.44                             | 10.0                             | 6.3                 | 5.4               |
| SGV221M010RT | 220       | 10      | 250.00                                    | 1.56                             | 22.0                             | 8.0                 | 6.2               |
| SGV331M010RT | 330       | 10      | 330.00                                    | 1.04                             | 33.0                             | 8.0                 | 10.2              |
| SGV471M010RT | 470       | 10      | 400.00                                    | 0.73                             | 47.0                             | 10.0                | 10.2              |
| SGV100M016RT | 10        | 16      | 28.00                                     | 21.20                            | 3.0                              | 4.0                 | 5.4               |
| SGV220M016RT | 22        | 16      | 39.00                                     | 10.40                            | 3.5                              | 5.0                 | 5.4               |
| SGV330M016RT | 33        | 16      | 45.00                                     | 9.64                             | 5.3                              | 5.0                 | 5.4               |
| SGV470M016RT | 47        | 16      | 70.00                                     | 4.51                             | 7.5                              | 6.3                 | 5.4               |
| SGV101M016RT | 100       | 16      | 70.00                                     | 3.44                             | 16.0                             | 6.3                 | 5.4               |
| SGV221M016RT | 220       | 16      | 280.00                                    | 1.20                             | 35.2                             | 8.0                 | 10.2              |
| SGV331M016RT | 330       | 16      | 380.00                                    | 0.80                             | 52.8                             | 10.0                | 10.2              |
| SGV471M016RT | 470       | 16      | 420.00                                    | 0.56                             | 75.2                             | 10.0                | 10.2              |
| SGV4R7M025RT | 4.7       | 25      | 22.00                                     | 39.50                            | 3.0                              | 4.0                 | 5.4               |
| SGV100M025RT | 10        | 25      | 28.00                                     | 18.50                            | 3.0                              | 5.0                 | 5.4               |
| SGV220M025RT | 22        | 25      | 55.00                                     | 8.44                             | 5.5                              | 6.3                 | 5.4               |
| SGV330M025RT | 33        | 25      | 65.00                                     | 6.40                             | 8.3                              | 6.3                 | 5.4               |
| SGV470M025RT | 47        | 25      | 165.00                                    | 4.50                             | 11.8                             | 8.0                 | 6.2               |
| SGV101M025RT | 100       | 25      | 180.00                                    | 2.12                             | 25.0                             | 8.0                 | 10.2              |
| SGV221M025RT | 220       | 25      | 310.00                                    | 0.96                             | 55.0                             | 10.0                | 10.2              |
| SGV2R2M035RT | 2.2       | 35      | 8.00                                      | 72.40                            | 3.0                              | 3.0                 | 5.4               |
| SGV3R3M035RT | 3.3       | 35      | 10.00                                     | 48.40                            | 3.0                              | 3.0                 | 5.4               |
| SGV4R7M035RT | 4.7       | 35      | 22.00                                     | 33.80                            | 3.0                              | 4.0                 | 5.4               |
| SGV100M035RT | 10        | 35      | 30.00                                     | 15.90                            | 3.5                              | 5.0                 | 5.4               |
| SGV220M035RT | 22        | 35      | 60.00                                     | 7.23                             | 7.7                              | 6.3                 | 5.4               |
| SGV330M035RT | 33        | 35      | 130.00                                    | 5.62                             | 11.6                             | 8.0                 | 6.2               |
| SGV470M035RT | 47        | 35      | 165.00                                    | 3.95                             | 16.5                             | 8.0                 | 6.2               |
| SGV101M035RT | 100       | 35      | 210.00                                    | 1.85                             | 35.0                             | 10.0                | 10.2              |
| SGVR01M050RT | 0.1       | 50      | 1.00                                      | 1593.00                          | 3.0                              | 4.0                 | 5.4               |
| SGVR22M050RT | 0.22      | 50      | 2.00                                      | 723.00                           | 3.0                              | 4.0                 | 5.4               |
| SGVR33M050RT | 0.33      | 50      | 3.00                                      | 482.00                           | 3.0                              | 4.0                 | 5.4               |
| SGVR47M050RT | 0.47      | 50      | 5.00                                      | 338.00                           | 3.0                              | 4.0                 | 5.4               |
| SGV1R0M050RT | 1         | 50      | 10.00                                     | 159.00                           | 3.0                              | 4.0                 | 5.4               |
| SGV2R2M050RT | 2.2       | 50      | 16.00                                     | 72.30                            | 3.0                              | 4.0                 | 5.4               |
| SGV3R3M050RT | 3.3       | 50      | 16.00                                     | 48.20                            | 3.0                              | 4.0                 | 5.4               |
| SGV4R7M050RT | 4.7       | 50      | 23.00                                     | 33.80                            | 3.0                              | 5.0                 | 5.4               |
| SGV100M050RT | 10        | 50      | 35.00                                     | 15.90                            | 5.0                              | 6.3                 | 5.4               |
| SGV220M050RT | 22        | 50      | 110.00                                    | 7.23                             | 11.0                             | 8.0                 | 6.2               |
| SGV330M050RT | 33        | 50      | 120.00                                    | 4.82                             | 16.5                             | 8.0                 | 10.2              |
| SGV470M050RT | 47        | 50      | 130.00                                    | 3.38                             | 23.5                             | 10.0                | 10.2              |

**MALLORY**

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## TYPE SSV @105°C

### S SERIES

### S U R F A C E M O U N T A L U M I N U M C A P A C I T O R S

#### SPECIFICATIONS

- Temperature Range: -40 ~ +105°C
- Rated Voltage Range: 6.3 ~ 50 VDC
- Capacitance Tolerance:  $\pm 20\%$
- Capacitance Range: .1 ~ 470  $\mu\text{F}$
- Size Range: 4.0mm ~ 10.0mm diameter  
5.4mm ~ 10.2mm length
- Load Life - 1000 Hours @ 105°C



| Part Number  | Cap<br>$\mu\text{F}$ | Voltage | Max ripple<br>current<br>mA/105°C<br>120 Hz | Max ESR<br>Ohms<br>120 Hz<br>20°C | Max LC<br>$\mu\text{A}$<br>for 2<br>minutes | Size<br>(mm)<br>Dia | Size<br>(mm)<br>L |
|--------------|----------------------|---------|---------------------------------------------|-----------------------------------|---------------------------------------------|---------------------|-------------------|
| SSV220M6R3RT | 22                   | 6.3     | 29                                          | 18                                | 3                                           | 4                   | 5.4               |
| SSV330M6R3RT | 33                   | 6.3     | 43                                          | 12                                | 3                                           | 5                   | 5.4               |
| SSV470M6R3RT | 47                   | 6.3     | 46                                          | 8.46                              | 3                                           | 5                   | 5.4               |
| SSV101M6R3RT | 100                  | 6.3     | 71                                          | 4.64                              | 6.3                                         | 6.3                 | 5.4               |
| SSV221M6R3RT | 220                  | 6.3     | 160                                         | 2.11                              | 13.92                                       | 8                   | 10.2              |
| SSV331M6R3RT | 330                  | 6.3     | 230                                         | 1.4                               | 20.79                                       | 8                   | 10.2              |
| SSV330M010RT | 33                   | 10      | 43                                          | 8.84                              | 3.3                                         | 5                   | 5.4               |
| SSV470M010RT | 47                   | 10      | 70                                          | 8.46                              | 4.7                                         | 6.3                 | 5.4               |
| SSV101M010RT | 100                  | 10      | 110                                         | 3.97                              | 10                                          | 8                   | 6.2               |
| SSV221M010RT | 220                  | 10      | 160                                         | 1.56                              | 22                                          | 8                   | 10.2              |
| SSV331M010RT | 330                  | 10      | 230                                         | 0.64                              | 33                                          | 10                  | 10.2              |
| SSV471M010RT | 470                  | 10      | 270                                         | 0.45                              | 47                                          | 10                  | 10.2              |
| SSV100M016RT | 10                   | 16      | 28                                          | 21.2                              | 3                                           | 4                   | 5.4               |
| SSV220M016RT | 22                   | 16      | 39                                          | 9.64                              | 3.5                                         | 5                   | 5.4               |
| SSV330M016RT | 33                   | 16      | 65                                          | 8.03                              | 5.3                                         | 6.3                 | 5.4               |
| SSV470M016RT | 47                   | 16      | 70                                          | 5.64                              | 7.5                                         | 6.3                 | 5.4               |
| SSV101M016RT | 100                  | 16      | 130                                         | 2.65                              | 16                                          | 8                   | 10.2              |
| SSV221M016RT | 220                  | 16      | 210                                         | 1.2                               | 35.2                                        | 10                  | 10.2              |
| SSV331M016RT | 330                  | 16      | 230                                         | 0.8                               | 52.8                                        | 10                  | 10.2              |
| SSV4R7M025RT | 4.7                  | 25      | 22                                          | 39.5                              | 3                                           | 4                   | 5.4               |
| SSV100M025RT | 10                   | 25      | 28                                          | 18.5                              | 3                                           | 5                   | 5.4               |
| SSV220M025RT | 22                   | 25      | 55                                          | 8.44                              | 3                                           | 6.3                 | 5.4               |
| SSV330M025RT | 33                   | 25      | 65                                          | 6.43                              | 8.3                                         | 6.3                 | 5.4               |
| SSV470M025RT | 47                   | 25      | 91                                          | 4.51                              | 11.8                                        | 8                   | 6.2               |
| SSV101M025RT | 100                  | 25      | 130                                         | 2.12                              | 25                                          | 8                   | 10.2              |
| SSV4R7M035RT | 4.7                  | 35      | 22                                          | 33.8                              | 3                                           | 4                   | 5.4               |
| SSV100M035RT | 10                   | 35      | 30                                          | 15.9                              | 3.5                                         | 5                   | 5.4               |
| SSV220M035RT | 22                   | 35      | 60                                          | 8.44                              | 7.7                                         | 6.3                 | 5.4               |
| SSV330M035RT | 33                   | 35      | 84                                          | 5.62                              | 11.5                                        | 8                   | 6.2               |
| SSV470M035RT | 47                   | 35      | 98                                          | 3.95                              | 16.45                                       | 8                   | 10.2              |
| SSV101M035RT | 100                  | 35      | 160                                         | 1.85                              | 35                                          | 10                  | 10.2              |
| SSVR01M050RT | 0.1                  | 50      | 1                                           | 1593                              | 3                                           | 4                   | 5.4               |
| SSVR22M050RT | 0.22                 | 50      | 2                                           | 723                               | 3                                           | 4                   | 5.4               |
| SSVR33M050RT | 0.33                 | 50      | 3                                           | 482                               | 3                                           | 4                   | 5.4               |
| SSVR47M050RT | 0.47                 | 50      | 5                                           | 338                               | 3                                           | 4                   | 5.4               |
| SSV1R0M050RT | 1                    | 50      | 10                                          | 159                               | 3                                           | 4                   | 5.4               |
| SSV2R2M050RT | 2.2                  | 50      | 16                                          | 72.3                              | 3                                           | 4                   | 5.4               |
| SSV3R3M050RT | 3.3                  | 50      | 16                                          | 48.2                              | 3                                           | 4                   | 5.4               |
| SSV4R7M050RT | 4.7                  | 50      | 23                                          | 33.8                              | 3                                           | 5                   | 5.4               |
| SSV100M050RT | 10                   | 50      | 35                                          | 15.9                              | 3                                           | 6.3                 | 5.4               |
| SSV220M050RT | 22                   | 50      | 70                                          | 7.23                              | 11                                          | 8                   | 6.2               |
| SSV330M050RT | 33                   | 50      | 91                                          | 4.82                              | 16.5                                        | 8                   | 10.2              |
| SSV470M050RT | 47                   | 50      | 100                                         | 3.38                              | 23.5                                        | 10                  | 10.2              |



## S SERIES

### S U R F A C E

### M O U N T

### A L U M I N U M

### C A P A C I T O R S

#### FEATURES

- General Purpose
- Low Profile Vertical Chip

#### APPLICATIONS

- DC to DC Converters
- On Board Power Supplies
- Switch Mode Power Supplies
- Blocking
- Bypass
- Decoupling
- Energy Storage



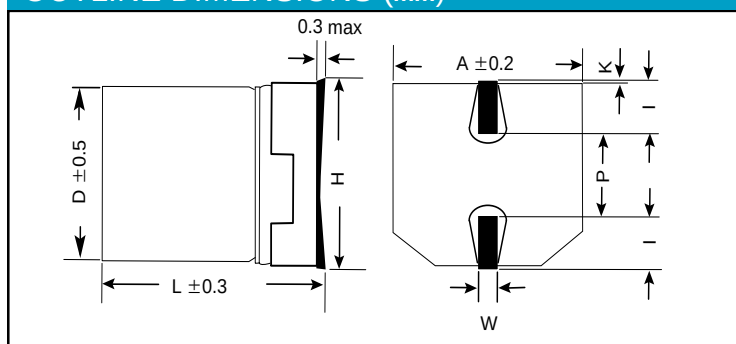
#### SPECIFICATIONS

| D    | L    | A    | H (Max) | I   | W         | P        | K         |
|------|------|------|---------|-----|-----------|----------|-----------|
| 4.0  | 5.4  | 4.3  | 5.5     | 1.8 | 0.65 ±0.1 | 1.0 ±0.2 | 0.35      |
| 5.0  | 5.4  | 5.3  | 6.5     | 2.2 | 0.65 ±0.1 | 1.5 ±0.2 | 0.35      |
| 6.3  | 5.4  | 6.6  | 7.8     | 2.6 | 0.65 ±0.1 | 1.8 ±0.2 | 0.35      |
| 8.0  | 6.2  | 8.3  | 9.5     | 3.4 | 0.65 ±0.1 | 2.2 ±0.2 | 0.35      |
| 8.0  | 10.2 | 8.3  | 10.0    | 3.4 | 0.90 ±0.2 | 3.1 ±0.2 | 0.70 ±0.2 |
| 10.0 | 10.2 | 10.3 | 12.0    | 3.5 | 0.90 ±0.2 | 4.6 ±0.2 | 0.70 ±0.2 |

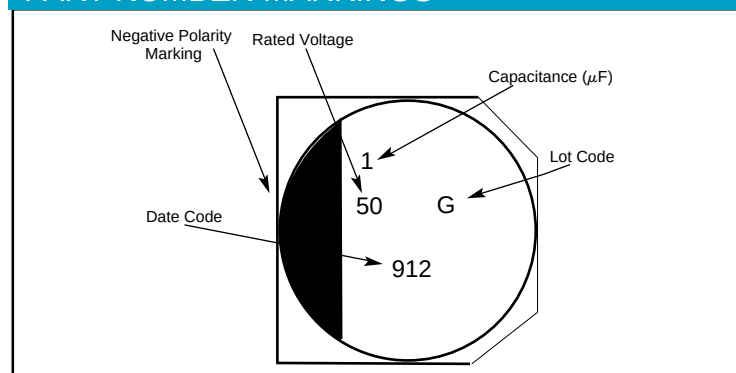
#### CROSS REFERENCE

| Competitor   | Competitor Series | NACC Series |
|--------------|-------------------|-------------|
| BC           | 153CLV            | SSV         |
| CDE          | AVS               | SGV         |
| CDE          | AHA               | SSV         |
| Elna         | RV2               | SGV         |
| Elna         | RV3               | SGV         |
| Elna         | RV4               | SGV         |
| Elna         | RVS               | SSV         |
| Elna         | RVL               | SSV         |
| Elna         | RVJ               | SSV         |
| Illinois Cap | SML               | SGV         |
| Illinois Cap | SMH               | SSV         |
| Jaro         | AC                | SGV         |
| Jaro         | ACH               | SSV         |
| NIC          | NACE              | SGV         |
| NIC          | NACS              | SGV         |
| NIC          | NACH              | SSV         |
| Nichicon     | ZS                | SGV         |
| Nichicon     | WX                | SGV         |
| Nichicon     | WT                | SSV         |
| Panasonic    | ECEV(A)S          | SGV         |
| Panasonic    | EEV-HA            | SSV         |
| Rubycon      | REV               | SGV         |
| Rubycon      | RKV               | SSV         |
| UCC          | MV                | SGV         |
| UCC          | MVS               | SGV         |
| UCC          | MVJ               | SSV         |
| UCC          | MVK               | SSV         |

#### OUTLINE DIMENSIONS (mm)



#### PART NUMBER MARKINGS



## MALLORY®

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## S SERIES

### S U R F A C E

### M O U N T

### A L U M I N U M

### C A P A C I T O R S

#### TAPE & REEL PACKAGING QUANTITY

| Size      | Quantity Per Reel | Box Packaging | Reel Size (mm) |
|-----------|-------------------|---------------|----------------|
| 3 X 5.4   | 2000              | 20000         | 380            |
| 4 X 5.4   | 2000              | 20000         | 380            |
| 5 X 5.4   | 1000              | 10000         | 380            |
| 6.3 X 5.4 | 1000              | 10000         | 380            |
| 8 X 6.2   | 1000              | 10000         | 380            |
| 8 X 10.2  | 500               | 3000          | 380            |
| 10 X 10.2 | 500               | 5000          | 380            |

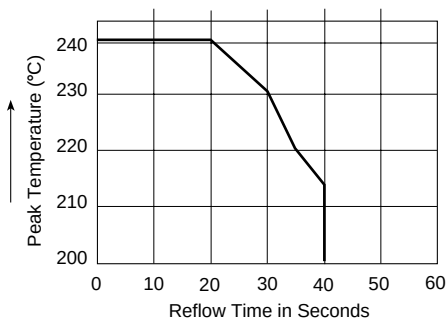


#### REFLOW SOLDERING

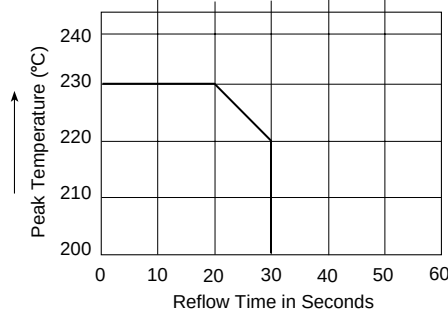
- For reflow, use a thermal conduction system such as infrared radiation. Vapor heat transfer systems are not recommended.
- Reflow should be performed one time only.
- Observe the proper soldering condition limits below. Do not exceed the specified limits.

#### REFLOW CONDITION LIMITS

Diameter 3mm ~ 6.3mm



Diameter 8mm ~ 10mm



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