

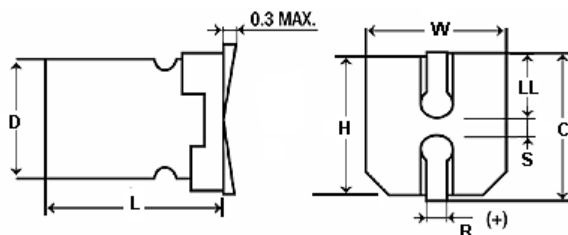
**SVH****105°C LONG LIFE  
SURFACE MOUNT  
CAPACITORS****FEATURES**

Small size – Extended Life – Low cost

**APPLICATIONS**

Filtering – Bypass – Coupling – Blocking

|                                                          |                |                                                                                                                                                                                      |     |                                  |      |     |      |  |  |
|----------------------------------------------------------|----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|----------------------------------|------|-----|------|--|--|
| Operating Temperature Range                              |                | -40°C to +105°C                                                                                                                                                                      |     |                                  |      |     |      |  |  |
| Capacitance Tolerance                                    |                | +20% at 120 Hz, 20°C                                                                                                                                                                 |     |                                  |      |     |      |  |  |
| Surge voltage                                            | WVDC           | 6.3                                                                                                                                                                                  | 10  | 16                               | 25   | 35  | 50   |  |  |
|                                                          | SVDC           | 7.9                                                                                                                                                                                  | 13  | 20                               | 32   | 44  | 63   |  |  |
| Dissipation Factor                                       | WVDC           | 6.3                                                                                                                                                                                  | 10  | 16                               | 25   | 35  | 50   |  |  |
|                                                          | tan δ          | .3                                                                                                                                                                                   | .24 | .2                               | .16  | .14 | .14  |  |  |
| Leakage current                                          |                | 2 Minutes                                                                                                                                                                            |     |                                  |      |     |      |  |  |
|                                                          |                | .01CV or 3uA,Whichever is greater                                                                                                                                                    |     |                                  |      |     |      |  |  |
| Low temperature stability<br>Impedance ratio<br>(120 Hz) | Rated WVDC     | 6.3                                                                                                                                                                                  | 10  | 16                               | 25   | 35  | 50   |  |  |
|                                                          | -25°C to +20°C | 4                                                                                                                                                                                    | 3   | 2                                | 2    | 2   | 2    |  |  |
|                                                          | -40°C to +20°C | 8                                                                                                                                                                                    | 6   | 4                                | 4    | 3   | 3    |  |  |
| Load Life                                                |                | 2000 hours at 105°C with rated WVDC                                                                                                                                                  |     |                                  |      |     |      |  |  |
|                                                          |                | Capacitance change                                                                                                                                                                   |     | ≤30% of initial measured value   |      |     |      |  |  |
|                                                          |                | Dissipation factor                                                                                                                                                                   |     | ≤300% of maximum specified value |      |     |      |  |  |
|                                                          |                | Leakage current                                                                                                                                                                      |     | ≤100% of maximum specified value |      |     |      |  |  |
| Shelf Life                                               |                | 1000 hours at 105°C with no voltage applied                                                                                                                                          |     |                                  |      |     |      |  |  |
|                                                          |                | Capacitance change                                                                                                                                                                   |     | ≤30% of initial measured value   |      |     |      |  |  |
|                                                          |                | Dissipation factor                                                                                                                                                                   |     | ≤300% of maximum specified value |      |     |      |  |  |
|                                                          |                | Leakage current                                                                                                                                                                      |     | ≤100% of maximum specified value |      |     |      |  |  |
| Resistance to soldering heat                             |                | Capacitors placed on a 250°C hot plate for 30 seconds with their electrode terminations facing downward will fulfill the following conditions after being cooled to room temperature |     |                                  |      |     |      |  |  |
|                                                          |                | Capacitance change                                                                                                                                                                   |     | ≤10% of initial measured value   |      |     |      |  |  |
|                                                          |                | Dissipation factor                                                                                                                                                                   |     | ≤100% of maximum specified value |      |     |      |  |  |
|                                                          |                | Leakage current                                                                                                                                                                      |     | ≤100% of maximum specified value |      |     |      |  |  |
| Ripple Current Multipliers                               |                | Frequency (Hz)                                                                                                                                                                       |     |                                  |      |     |      |  |  |
|                                                          |                | 50                                                                                                                                                                                   | 120 | 400                              | 1k   | 10k | 100k |  |  |
|                                                          |                | 0.7                                                                                                                                                                                  | 1.0 | 1.17                             | 1.38 | 1.5 | 1.5  |  |  |



| D   | L             | W±0.2 | H±0.2 | C±0.2 | R       | LL±0.2 | S±0.2 |
|-----|---------------|-------|-------|-------|---------|--------|-------|
| 4   | 5.4 +0.1/-0.2 | 4.3   | 4.3   | 5.0   | 0.5-0.8 | 1.8    | 1.0   |
| 5   | 5.4 +0.1/-0.2 | 5.3   | 5.3   | 6.0   | 0.5-0.8 | 2.1    | 1.4   |
| 6.3 | 5.4 +0.1/-0.2 | 6.6   | 6.6   | 7.3   | 0.5-0.8 | 2.4    | 2.2   |
| 6.3 | 7.7 +0.1/-0.2 | 6.6   | 6.6   | 7.3   | 0.5-0.8 | 2.4    | 2.2   |
| 8   | 10.5+0.1/-0.2 | 8.3   | 8.3   | 9.0   | 0.7-1.0 | 2.9    | 3.1   |
| 10  | 10.5+0.1/-0.2 | 10.3  | 10.3  | 11.0  | 0.7-1.0 | 3.2    | 4.5   |

**ILLINOIS CAPACITOR**

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**SVH****105°C LONG LIFE  
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| Cap<br>(uF) | WVDC | IC PART #    | Maximum<br>ESR (Ω)<br>120 Hz<br>20°C | Ripple<br>current<br>(mA)<br>120Hz,<br>105°C | Dimensions<br>DxL<br>(mm) |
|-------------|------|--------------|--------------------------------------|----------------------------------------------|---------------------------|
| 1           | 50   | 105SVH050MCR | 232.10                               | 6.3                                          | 4x5.4                     |
| 2.2         | 50   | 225SVH050MCR | 105.50                               | 12                                           | 4x5.4                     |
| 3.3         | 50   | 335SVH050MCR | 70.33                                | 17                                           | 4x5.4                     |
| 4.7         | 35   | 475SVH035MCR | 49.38                                | 20                                           | 4x5.4                     |
| 4.7         | 50   | 475SVH050MDR | 49.38                                | 21                                           | 5x5.4                     |
| 10          | 25   | 106SVH025MCR | 26.53                                | 20                                           | 4x5.4                     |
| 10          | 50   | 106SVH050MER | 23.21                                | 35                                           | 6.3x5.4                   |
| 22          | 6.3  | 226SVH6R3MCR | 22.61                                | 29                                           | 4x5.4                     |
| 22          | 25   | 226SVH025MDR | 12.06                                | 35                                           | 5x5.4                     |
| 22          | 35   | 226SVH035MER | 10.55                                | 52                                           | 6.3x5.4                   |
| 22          | 50   | 226SVH050MEL | 10.55                                | 50                                           | 6.3x7.7                   |
| 33          | 10   | 336SVH010MDR | 12.06                                | 40                                           | 5x5.4                     |
| 33          | 25   | 336SVH025MER | 8.04                                 | 50                                           | 6.3x5.4                   |
| 33          | 50   | 336SVH050MEL | 7.03                                 | 80                                           | 6.3x7.7                   |
| 47          | 6.3  | 476SVH6R3MDR | 10.58                                | 350                                          | 5x5.4                     |
| 47          | 25   | 476SVH025MER | 5.64                                 | 65                                           | 6.3x5.4                   |
| 47          | 50   | 476SVH050MEL | 4.94                                 | 95                                           | 6.3x7.7                   |
| 100         | 16   | 107SVH016MER | 3.32                                 | 90                                           | 6.3x5.4                   |
| 100         | 35   | 107SVH035MEL | 2.65                                 | 140                                          | 6.3x7.7                   |
| 100         | 50   | 107SVH050MFE | 2.32                                 | 99                                           | 8x10.5                    |
| 150         | 6.3  | 157SVH6R3MER | 3.32                                 | 86                                           | 6.3x5.4                   |
| 150         | 25   | 157SVH025MEL | 1.77                                 | 91                                           | 6.3x7.7                   |
| 150         | 35   | 157SVH035MFE | 1.55                                 | 260                                          | 8x10.5                    |
| 150         | 50   | 157SVH050MGE | 1.55                                 | 250                                          | 10x10.5                   |
| 220         | 16   | 227SVH016MEL | 1.51                                 | 170                                          | 6.3x7.7                   |
| 220         | 25   | 227SVH025MFE | 1.21                                 | 230                                          | 8x10.5                    |
| 220         | 50   | 227SVH050MGE | 1.06                                 | 45                                           | 10x10.5                   |
| 330         | 25   | 337SVH025MFE | 0.80                                 | 25                                           | 8x10.5                    |
| 330         | 35   | 337SVH035MGE | 0.70                                 | 450                                          | 10x10.5                   |
| 470         | 16   | 477SVH016MFE | 0.71                                 | 360                                          | 8x10.5                    |
| 470         | 25   | 477SVH025MGE | 0.56                                 | 490                                          | 10x10.5                   |
| 680         | 6.3  | 687SVH6R3MFE | 0.73                                 | 340                                          | 8x10.5                    |
| 680         | 25   | 687SVH025MGE | 0.39                                 | 490                                          | 10x10.5                   |
| 1000        | 10   | 108SVH010MGE | 0.40                                 | 350                                          | 10x10.5                   |



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