

FEATURES

Small size - Extended Life - Low cost

APPLICATIONS

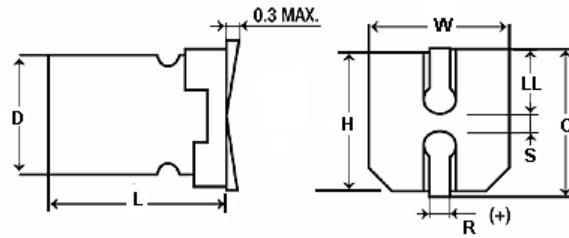
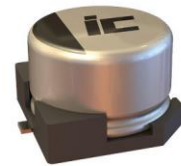
Filtering - Bypass - Coupling - Blocking

| | | | | | | | | | | | | | | | |
|---|--------------------|---|------------|------------|-----------|------------|-------------|-----------|------------|----------------|------------|------------|------------|----------------------------------|--|
| Operating Temperature Range | | -40°C to +105°C (6.3 to 100WVDC) -25°C to +105°C (160 to 450WVDC) | | | | | | | | | | | | | |
| Capacitance Tolerance | | ±20% at 120 Hz, 20°C | | | | | | | | | | | | | |
| Surge voltage | WVDC | 6.3 | 10 | 16 | 25 | 35 | 50 | 63 | 100 | 160 | 200 | 250 | 400 | 450 | |
| | SVDC | 7.9 | 13 | 20 | 32 | 44 | 63 | 79 | 125 | 200 | 250 | 300 | 450 | 500 | |
| Dissipation Factor | WVDC | 6.3 | 10 | 16 | 25 | 35 | 50 | 63 | 100 | 160 | 200 | 250 | 400 | 450 | |
| | tan δ | .3 | .24 | .2 | .16 | .14 | .14 | .18 | .18 | .2 | .2 | .2 | .25 | .25 | |
| | D>12.5 | .35 | .3 | .34 | .26 | .22 | .18 | .14 | .18 | .2 | .2 | .2 | .25 | .25 | |
| Leakage current | | 2 Minutes .01CV or 3µA, Whichever is greater | | | | | | | | | | | | | |
| Low temperature stability Impedance ratio (120 Hz) | Rated WVDC | 6.3 | 10 | 16 | 25 | 35 | 50 | 63 | 100 | 160-450 | | | | | |
| | -25°C/+20°C | 4 | 3 | 2 | 2 | 2 | 2 | 2 | 2 | 4 | | | | | |
| | -40°C/+20°C | 8 | 8 | 4 | 4 | 3 | 3 | 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 | | | | | | | | |

SVH

Surface Mount Capacitors

+105°C Long Life



| D | L | W \pm 0.2 | H \pm 0.2 | C \pm 0.2 | R | LL \pm 0.2 | S \pm 0.2 |
|------|----------------|-------------|-------------|-------------|---------|--------------|-------------|
| 4.0 | 5.4 \pm 0.3 | 4.3 | 4.3 | 5.0 | 0.5-0.8 | 1.8 | 1.0 |
| 5.0 | 5.4 \pm 0.3 | 5.3 | 5.3 | 6.0 | 0.5-0.8 | 2.1 | 1.4 |
| 6.3 | 5.4 \pm 0.3 | 6.6 | 6.6 | 7.3 | 0.5-0.8 | 2.4 | 2.2 |
| 6.3 | 7.7 \pm 0.3 | 6.6 | 6.6 | 7.3 | 0.5-0.8 | 2.4 | 2.2 |
| 8.0 | 10.5 \pm 0.3 | 8.3 | 8.3 | 9.0 | 0.7-1.0 | 2.9 | 3.1 |
| 10.0 | 10.5 \pm 0.3 | 10.3 | 10.3 | 11.0 | 0.7-1.0 | 3.2 | 4.5 |
| 12.5 | 13.5 \pm 0.5 | 13.0 | 13.0 | 15.0 | 0.7-1.1 | 4.8 | 4.4 |
| 12.5 | 16.0 \pm 0.5 | 13.0 | 13.0 | 15.0 | 0.7-1.1 | 4.8 | 4.4 |
| 16.0 | 16.5 \pm 0.5 | 17.0 | 17.0 | 19.0 | 0.7-1.1 | 6.3 | 6.4 |

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SVH

+105°C, Long Life, 2000 hours

| Capacitance (µF) | WVDC | IC PART NUMBER | Maximum ESR (Ω) 120 Hz, +20°C | Maximum RMS Ripple Current (mA) 120 Hz, +105°C | Dims DxL (mm) |
|------------------|------|----------------|-------------------------------------|--|---------------|
| 1 | 50 | 105SVH050MCR | 232.1 | 6.3 | 4x5.4 |
| 2.2 | 50 | 225SVH050MCR | 105.5 | 11 | 4x5.4 |
| 3.3 | 50 | 335SVH050MCR | 70.33 | 14 | 4x5.4 |
| 3.3 | 450 | 335SVH450MTP | 125.6 | 40 | 12.5x13.5 |
| 4.7 | 6.3 | 475SVH6R3MCR | 10.82 | 31 | 4x5.4 |
| 4.7 | 35 | 475SVH035MCR | 49.38 | 16 | 4x5.4 |
| 4.7 | 50 | 475SVH050MDR | 49.38 | 19 | 5x5.4 |
| 4.7 | 450 | 475SVH450MTP | 88.1843 | 45 | 12.5x13.5 |
| 6.8 | 35 | 685SVH035MCR | 31.13 | 25 | 4x5.4 |
| 10 | 25 | 106SVH025MCR | 26.53 | 13 | 4x5.4 |
| 10 | 50 | 106SVH050MER | 23.21 | 30 | 6.3x5.4 |
| 10 | 200 | 106SVH200MTP | 33.1573 | 80 | 12.5x13.5 |
| 10 | 400 | 106SVH400MTP | 41.4466 | 50 | 12.5x13.5 |
| 10 | 450 | 106SVH450MTBW | 41.4466 | 75 | 12.5x16 |
| 22 | 6.3 | 226SVH6R3MCR | 22.61 | 22 | 4x5.4 |
| 22 | 16 | 226SVH016MCR | 12.06 | 29 | 4x5.4 |
| 22 | 25 | 226SVH025MDR | 12.06 | 23 | 5x5.4 |
| 22 | 35 | 226SVH035MER | 10.55 | 44 | 6.3x5.4 |
| 22 | 50 | 226SVH050MEL | 10.55 | 51 | 6.3x7.7 |
| 22 | 100 | 226SVH100MFE | 13.56 | 100 | 8x10.5 |
| 22 | 200 | 226SVH200MTBW | 15.0715 | 110 | 12.5x16 |
| 22 | 250 | 226SVH250MTP | 15.0715 | 105 | 12.5x13.5 |
| 33 | 6.3 | 336SVH6R3MCR | 15.07 | 29 | 4x5.4 |
| 33 | 10 | 336SVH010MDR | 12.06 | 35 | 5x5.4 |
| 33 | 16 | 336SVH016MDR | 8.04 | 40 | 5x5.4 |
| 33 | 25 | 336SVH025MER | 8.04 | 38 | 6.3x5.4 |
| 33 | 50 | 336SVH050MEL | 7.03 | 60 | 6.3x7.7 |
| 33 | 100 | 336SVH100MFE | 9.04 | 120 | 8x10.5 |
| 33 | 100 | 336SVH100MGE | 9.04 | 150 | 10x10.5 |
| 33 | 160 | 336SVH160MTP | 10.0477 | 95 | 12.5x13.5 |
| 33 | 200 | 336SVH200MTBW | 10.0477 | 120 | 12.5x16 |
| 47 | 6.3 | 476SVH6R3MDR | 10.58 | 36 | 5x5.4 |
| 47 | 16 | 476SVH016MDR | 5.6438 | 42 | 5x5.4 |
| 47 | 25 | 476SVH025MER | 5.64 | 48 | 6.3x5.4 |
| 47 | 50 | 476SVH050MEL | 4.94 | 63 | 6.3x7.7 |
| 47 | 63 | 476SVH063MFE | 6.35 | 170 | 8x10.5 |
| 47 | 100 | 476SVH100MFE | 6.35 | 170 | 8x10.5 |
| 47 | 100 | 476SVH100MGE | 6.35 | 250 | 10x10.5 |
| 47 | 100 | 476SVH100MTP | 6.3493 | 250 | 12.5x13.5 |
| 100 | 16 | 107SVH016MER | 3.32 | 60 | 6.3x5.4 |
| 100 | 25 | 107SVH025MEL | 2.65 | 100 | 6.3x7.7 |
| 100 | 25 | 107SVH025MEL | 2.6526 | 100 | 6.3x7.7 |
| 100 | 35 | 107SVH035MEL | 2.65 | 100 | 6.3x7.7 |
| 100 | 50 | 107SVH050MFE | 2.82 | 230 | 8x10.5 |
| 100 | 63 | 107SVH063MGE | 2.98 | 340 | 10x10.5 |
| 100 | 100 | 107SVH100MTP | 2.98 | 300 | 12.5x13.5 |
| 150 | 6.3 | 157SVH6R3MGE | 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 |
| 150 | 63 | 157SVH063MGE | 1.99 | 360 | 10x10.5 |
| 220 | 6.3 | 227SVH6R3MER | 2.261 | 80 | 6.3x5.4 |
| 220 | 10 | 227SVH010MEL | 1.8086 | 120 | 6.3x7.7 |
| 220 | 16 | 227SVH016MEL | 1.51 | 105 | 6.3x7.7 |
| 220 | 25 | 227SVH025MFE | 1.21 | 240 | 8x10.5 |
| 220 | 35 | 227SVH035MFE | 1.5071 | 170 | 8x10.5 |
| 220 | 50 | 227SVH050MGE | 1.06 | 375 | 10x10.5 |
| 220 | 63 | 227SVH063MTP | 1.3564 | 470 | 12.5x13.5 |

SVH

+105°C, Long Life, 2000 hours

| Capacitance (µF) | WVDC | IC PART NUMBER | Maximum ESR (Ω) 120 Hz, +20°C | Maximum RMS Ripple Current (mA) 120 Hz, +105°C | Dims DxL (mm) |
|------------------|------|-------------------------------|-------------------------------------|--|---------------|
| 330 | 6.3 | 337SVH6R3MEL | 1.507 | 140 | 6.3x7.7 |
| 330 | 25 | 337SVH025MFE | 0.8 | 320 | 8x10.5 |
| 330 | 35 | 337SVH035MGE | 0.7 | 410 | 10x10.5 |
| 330 | 50 | 337SVH050MTP | 0.9043 | 490 | 12.5x13.5 |
| 330 | 50 | 337SVH050MTP | 0.9043 | 490 | 12.5x13.5 |
| 470 | 16 | 477SVH016MFE | 0.71 | 240 | 8x10.5 |
| 470 | 25 | 477SVH025MGE | 0.56 | 450 | 10x10.5 |
| 470 | 35 | 477SVH035MTP | 0.78 | 520 | 12.5x13.5 |
| 470 | 50 | 477SVH050MTBW | 0.5644 | 550 | 12.5x16 |
| 680 | 6.3 | 687SVH6R3MFE | 0.73 | 340 | 8x10.5 |
| 680 | 25 | 687SVH025MGE | 0.39 | 490 | 10x10.5 |
| 680 | 35 | 687SVH035MTP | 0.54 | 590 | 12.5x13.5 |
| 1000 | 10 | 108SVH010MGE | 0.4 | 450 | 10x10.5 |
| 1500 | 6.3 | 158SVH6R3MGE | 0.39 | 460 | 10x10.5 |
| 1500 | 25 | 158SVH025MTBW | 0.29 | 590 | 12.5x16 |
| 2200 | 10 | 228SVH010MTP | 0.23 | 680 | 12.5x13.5 |