

HMV Series

Features

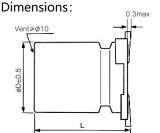
- · Low ESR and high ripple current
- · Designed for reflow soldering
- Vibration resistant structure
- · RoHS 2.0 compliant, 247 SVHC & REACH compliant
- AEC-Q200 compliant, Please contact Jarson for more details, test data, information

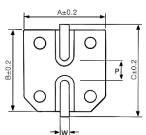




Marking color: Black

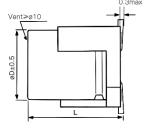
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|------------------------------|---|---------------------------------------|-----|-----|--------|--------------|-----|-----|------------------------------|--|
| Specifications | | | | | | | | | | |
| Category temp. range | –55℃ to +105℃ | | | | | | | | | |
| Capacitance tolerance | ±20% (120 Hz / +20 °C) | | | | | | | | | |
| Leakage current | $I \le 0.01$ CV or 3 μA whichever is greater (after 2 minutes) | | | | | | | | | |
| Tan δ | Please see the attached characteristics list | | | | | | | | | |
| Characteristics at low | Rated voltage (V) | 10 | 16 | 25 | 35 | 50 | 63 | 80 | | |
| temperature | Z(-25 °C)/Z(+20 °C) | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | Impedance ratio at 120 Hz | |
| temperature | Z (-55 °C) / Z (+20 °C) | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | | |
| | After applying rated working voltage and rated ripple current for 5000/10000 hours at +105 $^{\circ}$ C \pm 2 $^{\circ}$ C, and then | | | | | | | | | |
| | being stabilized at +20 °C, capacitors shall meet the following limits. | | | | | | | | | |
| | Test Time $ \begin{array}{c} 5 \varphi x6 L , 6.3 \varphi x6 L , \colon 5000 H \\ 6.3 \varphi x7.7 L , \varphi D \geqq 8mm \colon 10000 H \\ \end{array} $ | | | | | | | | | |
| Endurance | Capacitance change | nge Within ±30% of the initial value | | | | | | | | |
| | Dissipation factor ($\tan\delta$) Less than 200% of the initial value | | | | | | | | | |
| | ESR Less than 200% of the initial value | | | | | | | | | |
| | Leakage current Within the initial limit | | | | | | | | | |
| | After storage for 1000 h at +105 $^{\circ}$ C ± 2 $^{\circ}$ C with no voltage applied and then being stabilized at +20 $^{\circ}$ C, | | | | | | | | | |
| Shelf life | capacitors shall meet the limits specified in endurance. | | | | | | | | | |
| | After reflow soldering and then being stabilized at +20 °C, capacitors shall meet the following limits. | | | | | | | | | |
| | Capacitance change Within ±10% of the initial value | | | | | | | | | |
| Resistance to soldering heat | Dissipation factor (tan δ) | Within the initial limit | | | | | | | | |
| | ESR | Within the initial limit | | | | | | | | |
| | Leakage current | Within the initial limit | | | | | | | | |
| Frequency correction | Frequency | 120≤ f<1k 1k≤ f<10k 10k≤ f<100k 100k≤ | | | | 100k≤ f<500k | | | | |
| factor for ripple current | Correction Factor | | 0.1 | | 0.3 | | 0.6 | | 1.0 | |
| D: | | | | | | | | | | |

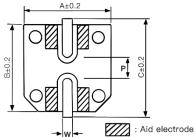




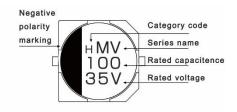
| Dimensions Unit: mm | | | | | | | | | |
|---------------------|----------|------|------|------|---------|-------|--|--|--|
| φD | L | Α | В | С | W | P±0.2 | | | |
| 5 | 6±0.5 | 5.3 | 5.3 | 6.0 | 0.5~0.8 | 1.4 | | | |
| 6.3 | 6±0.5 | 6.6 | 6.6 | 7.3 | 0.5~0.8 | 2.0 | | | |
| 6.3 | 7.7±0.5 | 6.6 | 6.6 | 7.3 | 0.5~0.8 | 2.0 | | | |
| 8 | 10±0.5 | 8.3 | 8.3 | 9.1 | 0.7~1.3 | 3.1 | | | |
| 10 | 10.5±0.5 | 10.3 | 10.3 | 11.1 | 0.7~1.3 | 4.4 | | | |

Vibration resistant structure:





Marking:





Part Number System:

Conductive Polymer $HMV \ series \qquad 25V \qquad \qquad 100 \mu F \qquad \qquad \pm 20 \ \% \qquad \qquad 6.3 \ \varphi \ x7.7 L$ Hybrid Capacitors

<u>H</u> <u>MV</u> <u>1E</u> <u>101</u> <u>M</u> <u>0607</u>

Product category Series name Rated voltage Capacitance Capacitance tolerance Case Size

| Characterist | ics list | | | : | | <u> </u> | <u>'</u> | |
|-------------------------|-------------------------------|------------|-----------|--------------------------------|--------------|----------|---------------|----------------|
| | | Casa | size | C n | ecification | | | Taping&Reel |
| Rated voltage (V) | Capacitance (±20%) (µF) | øD (mm) | L (mm) | Rated ripple current① (mA rms) | Imp.② (Ω) | tan δ③ | Part Number④ | MPQ (pcs/reel) |
| 10 | 100 | 5 | 6 | 800 | 80 | 0.18 | HMV1A101M0506 | 1000 |
| | 22 | 5 | 6 | 800 | 80 | 0.16 | HMV1C220M0506 | 1000 |
| | 47 | 6.3 | 6 | 1300 | 50 | 0.16 | HMV1C470M0606 | 1000 |
| | 82 | 6.3 | 6 | 1300 | 50 | 0.16 | HMV1C820M0606 | 1000 |
| | 100 | 6.3 | 6 | 1300 | 50 | 0.16 | HMV1C101M0606 | 1000 |
| 16 | 150 | 6.3 | 7.7 | 2000 | 30 | 0.16 | HMV1C151M0607 | 1000 |
| | 180 | 6.3 | 7.7 | 2000 | 30 | 0.16 | HMV1C181M0607 | 1000 |
| | 270 | 8 | 10 | 2300 | 27 | 0.16 | HMV1C271M0810 | 500 |
| | 330 | 8 | 10 | 2300 | 27 | 0.16 | HMV1C331M0810 | 500 |
| | 470 | 10 | 10.5 | 2500 | 20 | 0.16 | HMV1C471M1010 | 500 |
| | 560 | 10 | 10.5 | 2500 | 20 | 0.16 | HMV1C561M1010 | 500 |
| | 22 | 5 | 6 | 800 | 80 | 0.14 | HMV1E220M0506 | 1000 |
| | 33 | 5 | 6 | 800 | 80 | 0.14 | HMV1E330M0506 | 1000 |
| | 47 | 6.3 | 6 | 1300 | 50 | 0.14 | HMV1E470M0606 | 1000 |
| | 56 | 6.3 | 6 | 1300 | 50 | 0.14 | HMV1E560M0606 | 1000 |
| 25 | 68 | 6.3 | 7.7 | 2000 | 30 | 0.14 | HMV1E680M0607 | 1000 |
| 23 | 100 | 6.3 | 7.7 | 2000 | 30 | 0.14 | HMV1E101M0607 | 1000 |
| | 150 | 8 | 10 | 2300 | 27 | 0.14 | HMV1E151M0810 | 500 |
| | 220 | 8 | 10 | 2300 | 27 | 0.14 | HMV1E221M0810 | 500 |
| | 330 | 10 | 10.5 | 2500 | 20 | 0.14 | HMV1E331M1010 | 500 |
| | 470 | 10 | 12.5 | 2900 | 16 | 0.14 | HMV1E471M1013 | 400 |
| | 10 | 5 | 6 | 800 | 80 | 0.12 | HMV1V100M0506 | 1000 |
| | 22 | 5 | 6 | 800 | 80 | 0.12 | HMV1V220M0506 | 1000 |
| | 27 | 6.3 | 6 | 1300 | 60 | 0.12 | HMV1V270M0606 | 1000 |
| | 33 | 6.3 | 6 | 1300 | 60 | 0.12 | HMV1V330M0606 | 1000 |
| | 47 | 6.3 | 6 | 1300 | 60 | 0.12 | HMV1V470M0606 | 1000 |
| 35 | | 6.3 | 7.7 | 2000 | 35 | 0.12 | HMV1V470M0607 | 1000 |
| | 68 | 6.3 | 7.7 | 2000 | 35 | 0.12 | HMV1V680M0607 | 1000 |
| | 100 | 8 | 10 | 2300 | 27 | 0.12 | HMV1V101M0810 | 500 |
| | 150 | 8 | 10 | 2300 | 27 | 0.12 | HMV1V151M0810 | 500 |
| | 220 | 10 | 10.5 | 2500 | 20 | 0.12 | HMV1V221M1010 | 500 |
| | 270 | 10 | 10.5 | 2500 | 20 | 0.12 | HMV1V271M1010 | 500 |
| | 330 | 10 | 12.5 | 2900 | 16 | 0.12 | HMV1V331M1013 | 400 |

 $[\]textcircled{1} \ \ \, \text{Rated ripple current (100kHz / +105^{\circ}\text{C})} \qquad \textcircled{2} \ \, \text{ESR (100kHz / +20^{\circ}\text{C})} \qquad \textcircled{3} \ \, \text{tan } \delta \ \, \text{(120Hz / +20^{\circ}\text{C})}$

[ⓐ] For Vibration resistant structure, the Part Number is appended with "v" at the end.

 $[\]ensuremath{\mathbb{X}}\xspace$ Please refer to the page of reflow conditions for reflow profile.



| Characteristics list | | | | | | | | | |
|----------------------|----------------------------|------------|-----------|--------------------------------------|--------------|--------|---------------|-------------------|--|
| Rated | Capacitance (±20%) (µF) | Case size | | Sp | ecification | | | Taping&Reel | |
| voltage (V) | | øD (mm) | L (mm) | Rated ripple current① (mA rms) | Imp.② (Ω) | tan δ③ | Part Number④ | MPQ (pcs/reel) | |
| 50 | 10 | 6.3 | 6 | 1100 | 80 | 0.10 | HMV1H100M0606 | 1000 | |
| | 22 | 6.3 | 6 | 1100 | 80 | 0.10 | HMV1H220M0606 | 1000 | |
| | | 6.3 | 7.7 | 1600 | 40 | 0.10 | HMV1H220M0607 | 1000 | |
| | 33 | 6.3 | 7.7 | 1600 | 40 | 0.10 | HMV1H330M0607 | 1000 | |
| 30 | | 8 | 10 | 1800 | 30 | 0.10 | HMV1H330M0810 | 500 | |
| | 47 | 8 | 10 | 1800 | 30 | 0.10 | HMV1H470M0810 | 500 | |
| | 68 | 8 | 10 | 1800 | 30 | 0.10 | HMV1H680M0810 | 500 | |
| | 100 | 10 | 10.5 | 2000 | 28 | 0.10 | HMV1H101M1010 | 500 | |
| 63 | 10 | 6.3 | 6 | 1000 | 120 | 0.08 | HMV1J100M0606 | 1000 | |
| | | 6.3 | 7.7 | 1500 | 80 | 0.08 | HMV1J100M0607 | 1000 | |
| | 22 | 6.3 | 7.7 | 1500 | 80 | 0.08 | HMV1J220M0607 | 1000 | |
| | | 8 | 10 | 1700 | 40 | 0.08 | HMV1J220M0810 | 500 | |
| | 27 | 8 | 10 | 1700 | 40 | 0.08 | HMV1J270M0810 | 500 | |
| | 33 | 8 | 10 | 1700 | 40 | 0.08 | HMV1J330M0810 | 500 | |
| | 47 | 8 | 10 | 1700 | 40 | 0.08 | HMV1J470M0810 | 500 | |
| | 56 | 10 | 10.5 | 1800 | 30 0.08 | | HMV1J560M1010 | 500 | |
| | 68 | 10 | 10.5 | 1800 | 1800 30 0.08 | | HMV1J680M1010 | 500 | |
| | 82 | 10 | 10.5 | 1800 | 30 | 0.08 | HMV1J820M1010 | 500 | |
| | 100 | 10 | 12.5 | 2000 | 27 | 0.08 | HMV1J101M1013 | 400 | |
| 80 | 22 | 8 | 10 | 1550 | 45 | 0.08 | HMV1K220M0810 | 500 | |
| | 33 | 10 | 10.5 | 1700 | 36 | 0.08 | HMV1K330M1010 | 500 | |
| | 47 | 10 | 10.5 | 1700 | 36 | 0.08 | HMV1K470M1010 | 500 | |

① Rated ripple current (100kHz / +105°C) ② ESR (100kHz / +20°C) ③ $\tan \delta$ (120Hz / +20°C)

 $^{\ \, \}textcircled{4} \,$ For Vibration resistant structure, the Part Number is appended with "v" at the end.

XPlease refer to the page of reflow conditions for reflow profile.