

Alchip™-MVH Series

- Lower ESR, Higher ripple current
- Endurance : 1,000 to 5,000 hours at 125°C
- Suitable to fit for automotive equipment
- Solvent resistant type except 63 to 450V<sub>dc</sub> (see PRECAUTIONS AND GUIDELINES)
- Vibration resistant structure
- RoHS Compliant



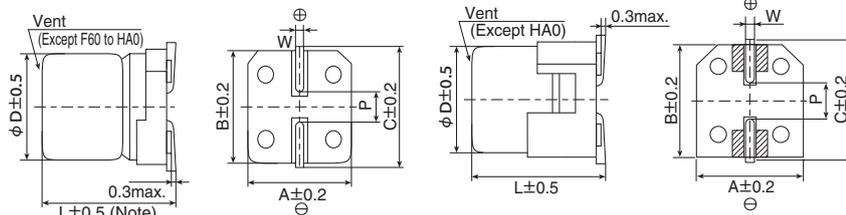
◆ SPECIFICATIONS

| Items   | Characteristics  |   |      |      |      |      |      |                                       |      |             |            |            |  |  |
|---|--|---|------|------|------|------|------|---------------------------------------|------|-------------|------------|------------|--|--|
| <b>Category Temperature Range</b>   | -40 to +125°C  |   |      |      |      |      |      |                                       |      |             |            |            |  |  |
| <b>Rated Voltage Range</b>  | 10 to 450V <sub>dc</sub>   |   |      |      |      |      |      |                                       |      |             |            |            |  |  |
| <b>Capacitance Tolerance</b>  | ±20% (M) (at 20°C, 120Hz)  |   |      |      |      |      |      |                                       |      |             |            |            |  |  |
| <b>Leakage Current</b>  | Rated voltage (V <sub>dc</sub> )   | 10 to 100V <sub>dc</sub>  |      |      |      |      |      | 160 to 450V <sub>dc</sub>             |      |             |            |            |  |  |
|   | F60 to JA0   | I=0.01CV or 3μA, whichever is greater.  |      |      |      |      |      | I=0.04CV+100                          |      |             |            |            |  |  |
|   | KE0 to MNO   | I=0.03CV or 4μA, whichever is greater.  |      |      |      |      |      |                                       |      |             |            |            |  |  |
| Where, I : Max. leakage current (μA), C : Nominal capacitance (μF), V : Rated voltage (V) (at 20°C after 2 minutes) |  |   |      |      |      |      |      |                                       |      |             |            |            |  |  |
| <b>Dissipation Factor (tanδ)</b>  | Rated voltage (V <sub>dc</sub> )   | 10V   | 16V  | 25V  | 35V  | 50V  | 63V  | 80V                                   | 100V | 160 to 250V | 400 & 450V |            |  |  |
|   | tanδ (Max.)  | F60 to JA0  | 0.24 | 0.20 | 0.16 | 0.14 | 0.14 | 0.12                                  | 0.12 | 0.10        | —          | —          |  |  |
|   |  | KE0 to MNO  | 0.22 | 0.18 | 0.16 | 0.14 | 0.12 | 0.14                                  | —    | 0.10        | 0.20       | 0.24       |  |  |
| When nominal capacitance exceeds 1,000μF, add 0.02 to the value above for each 1,000μF increase. (at 20°C, 120Hz)   |  |   |      |      |      |      |      |                                       |      |             |            |            |  |  |
| <b>Low Temperature Characteristics (Max. Impedance Ratio)</b>   | Rated voltage (V <sub>dc</sub> )   | 10V   | 16V  | 25V  | 35V  | 50V  | 63V  | 80V                                   | 100V | 160 to 250V | 400 & 450V |            |  |  |
|   | F60 to JA0   | Z(-25°C)/Z(+20°C)   | 3    | 2    | 2    | 2    | 2    | 2                                     | 2    | 2           | —          | —          |  |  |
|   |  | Z(-40°C)/Z(+20°C)   | 6    | 4    | 4    | 3    | 3    | 3                                     | 3    | 3           | —          | —          |  |  |
|   | KE0 to MNO   | Z(-25°C)/Z(+20°C)   | 4    | 3    | 2    | 2    | 2    | 2                                     | —    | 2           | 3          | 6          |  |  |
| Z(-40°C)/Z(+20°C)   |  | 8   | 6    | 4    | 3    | 3    | 3    | —                                     | 3    | 6           | 10         | (at 120Hz) |  |  |
| <b>Endurance</b>  | The following specifications shall be satisfied when the capacitors are restored to 20°C after the rated voltage is applied for the specified time at 125°C.   |   |      |      |      |      |      |                                       |      |             |            |            |  |  |
|   | Time   | F60 to H63 (10 to 100V <sub>dc</sub> ) : 1,000hours<br>HA0 to JA0 (10 to 100V <sub>dc</sub> ) : 2,000hours<br>KE0 to MNO (10 to 100V <sub>dc</sub> ) : 5,000hours<br>KE0 to MNO (160 to 450V <sub>dc</sub> ) : 2,000hours |      |      |      |      |      |                                       |      |             |            |            |  |  |
|   | Capacitance change   | ≤ ±30% of the initial value   |      |      |      |      |      |                                       |      |             |            |            |  |  |
|   | D.F. (tanδ)  | ≤ 300% of the initial specified value   |      |      |      |      |      |                                       |      |             |            |            |  |  |
|   | Leakage current  | ≤ The initial specified value   |      |      |      |      |      |                                       |      |             |            |            |  |  |
| <b>Shelf Life</b>   | The following specifications shall be satisfied when the capacitors are restored to 20°C after exposing them for 1,000 hours (500 hours for 400 to 450V <sub>dc</sub> ) at 125°C without voltage applied. Before the measurement, the capacitor shall be preconditioned by applying voltage according to Item 4.1 of JIS C 5101-4. |   |      |      |      |      |      |                                       |      |             |            |            |  |  |
|   | Rated voltage (V <sub>dc</sub> )   | 10 to 50V <sub>dc</sub>   |      |      |      |      |      | 63 to 450V <sub>dc</sub>              |      |             |            |            |  |  |
|   | Capacitance change   | ≤ ±30% of the initial value   |      |      |      |      |      | ≤ ±30% of the initial value           |      |             |            |            |  |  |
|   | D.F. (tanδ)  | ≤ 300% of the initial specified value   |      |      |      |      |      | ≤ 300% of the initial specified value |      |             |            |            |  |  |
|   | Leakage current  | ≤ The initial specified value   |      |      |      |      |      | ≤ 500% of the initial specified value |      |             |            |            |  |  |

◆ DIMENSIONS [mm]

- Terminal Code : A
- Size code : F60 to MNO

- Terminal Code : G (Vibration resistant structure)
- Size code : HA0 to MNO

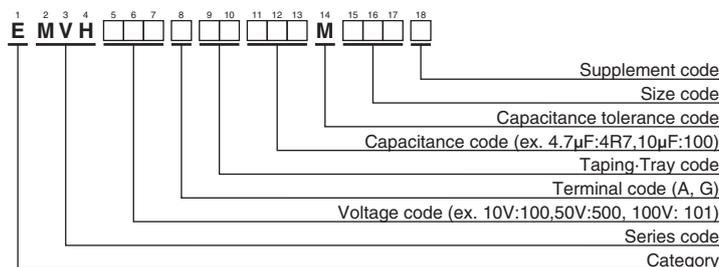


Note : L±0.3 for F60 and F80

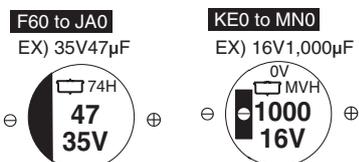
▨ : Dummy terminals

| Size code | D    | L    | A    | B    | C    | W          | P   |
|-----------|------|------|------|------|------|------------|-----|
| F60       | 6.3  | 5.7  | 6.6  | 6.6  | 7.2  | 0.5 to 0.8 | 1.9 |
| F80       | 6.3  | 7.7  | 6.6  | 6.6  | 7.2  | 0.5 to 0.8 | 1.9 |
| H63       | 8    | 6.3  | 8.3  | 8.3  | 9.0  | 0.5 to 0.8 | 2.3 |
| HA0       | 8    | 10.0 | 8.3  | 8.3  | 9.0  | 0.7 to 1.1 | 3.1 |
| JA0       | 10   | 10.0 | 10.3 | 10.3 | 11.0 | 0.7 to 1.1 | 4.5 |
| KE0       | 12.5 | 13.5 | 13.0 | 13.0 | 13.7 | 1.0 to 1.3 | 4.2 |
| KG5       | 12.5 | 16.0 | 13.0 | 13.0 | 13.7 | 1.0 to 1.3 | 4.2 |
| LH0       | 16   | 16.5 | 17.0 | 17.0 | 18.0 | 1.0 to 1.3 | 6.5 |
| LN0       | 16   | 21.5 | 17.0 | 17.0 | 18.0 | 1.0 to 1.3 | 6.5 |
| MH0       | 18   | 16.5 | 19.0 | 19.0 | 20.0 | 1.0 to 1.3 | 6.5 |
| MNO       | 18   | 21.5 | 19.0 | 19.0 | 20.0 | 1.0 to 1.3 | 6.5 |

◆ PART NUMBERING SYSTEM



◆ MARKING



Please refer to "Product code guide (surface mount type)"

Alchip™-MVH Series

◆STANDARD RATINGS

□ is not solvent resistant (63 to 450V<sub>dc</sub>).

| WV (V <sub>dc</sub> ) | Cap (μF) | Size code | ESR (Ω max/100kHz) |       | Rated ripple current (mArms/125°C) |                    | Part No.           | WV (V <sub>dc</sub> ) | Cap (μF) | Size code | ESR (Ω max/100kHz) |       | Rated ripple current (mArms/125°C) |                    | Part No.           |                    |                    |
|-----------------------|----------|-----------|--------------------|-------|------------------------------------|--------------------|--------------------|-----------------------|----------|-----------|--------------------|-------|------------------------------------|--------------------|--------------------|--------------------|--------------------|
|                       |          |           | 20°C               | -40°C | 100kHz                             | 120Hz              |                    |                       |          |           | 20°C               | -40°C | 100kHz                             | 120Hz              |                    |                    |                    |
| 10                    | 100      | F80       | 0.90               | 14.0  | 110                                | —                  | EMVH100ADA101MF80G | 50                    | 33       | F80       | 2.0                | 30.0  | 83                                 | —                  | EMVH500ADA330MF80G |                    |                    |
|                       | 100      | H63       | 0.90               | 14.0  | 110                                | —                  | EMVH100ADA101MH63G |                       | 33       | H63       | 1.6                | 30.0  | 83                                 | —                  | EMVH500ADA330MH63G |                    |                    |
|                       | 220      | F80       | 0.90               | 14.0  | 110                                | —                  | EMVH100ADA221MF80G |                       | 33       | HA0       | 0.70               | 11.0  | 160                                | —                  | EMVH500ADA330MHA0G |                    |                    |
|                       | 220      | H63       | 0.90               | 14.0  | 110                                | —                  | EMVH100ADA221MH63G |                       | 47       | HA0       | 0.70               | 11.0  | 160                                | —                  | EMVH500ADA470MHA0G |                    |                    |
|                       | 220      | HA0       | 0.40               | 6.0   | 220                                | —                  | EMVH100ADA221MHA0G |                       | 47       | JA0       | 0.50               | 7.5   | 247                                | —                  | EMVH500ADA470MJA0G |                    |                    |
|                       | 330      | HA0       | 0.40               | 6.0   | 220                                | —                  | EMVH100ADA331MHA0G |                       | 100      | JA0       | 0.50               | 7.5   | 247                                | —                  | EMVH500ADA101MJA0G |                    |                    |
|                       | 330      | JA0       | 0.30               | 4.5   | 296                                | —                  | EMVH100ADA331MJA0G |                       | 100      | KE0       | 0.23               | 3.5   | 550                                | —                  | EMVH500ARA101MKE0S |                    |                    |
|                       | 470      | JA0       | 0.30               | 4.5   | 296                                | —                  | EMVH100ADA471MJA0G |                       | 220      | KE0       | 0.23               | 3.5   | 550                                | —                  | EMVH500ARA221MKE0S |                    |                    |
|                       | 1,000    | KE0       | 0.14               | 2.1   | 750                                | —                  | EMVH100ARA102MKE0S |                       | 220      | LH0       | 0.15               | 2.3   | 850                                | —                  | EMVH500□DA221MLH0S |                    |                    |
|                       | 2,200    | LH0       | 0.10               | 1.5   | 1,000                              | —                  | EMVH100□DA222MLH0S |                       | 330      | KG5       | 0.18               | 2.7   | 700                                | —                  | EMVH500ARA331MKG5S |                    |                    |
|                       | 3,300    | MH0       | 0.10               | 1.5   | 1,200                              | —                  | EMVH100□DA222MMH0S |                       | 330      | LH0       | 0.15               | 2.3   | 850                                | —                  | EMVH500□DA331MLH0S |                    |                    |
|                       | 2,200    | MH0       | 0.10               | 1.5   | 1,200                              | —                  | EMVH100□DA332MMH0S |                       | 470      | MH0       | 0.15               | 2.3   | 920                                | —                  | EMVH500□DA471MMH0S |                    |                    |
|                       | 4,700    | MN0       | 0.058              | 0.87  | 1,550                              | —                  | EMVH100□DA472MMN0S |                       | 63       | 10        | F80                | 2.0   | 100                                | 60                 | —                  | EMVH630ADA100MF80G |                    |
|                       | 47       | F60       | 1.6                | 24.0  | 69                                 | —                  | EMVH160ADA470MF60G |                       |          | 10        | H63                | 2.0   | 110                                | 60                 | —                  | EMVH630ADA100MH63G |                    |
| 100                   | HA0      | 0.40      | 6.0                | 220   | —                                  | EMVH160ADA101MHA0G | 22                 | HA0                   |          | 0.70      | 35.0               | 100   | —                                  | EMVH630ADA220MHA0G |                    |                    |                    |
| 220                   | HA0      | 0.40      | 6.0                | 220   | —                                  | EMVH160ADA221MHA0G | 33                 | HA0                   |          | 0.70      | 35.0               | 100   | —                                  | EMVH630ADA330MHA0G |                    |                    |                    |
| 220                   | JA0      | 0.30      | 4.5                | 296   | —                                  | EMVH160ADA221MJA0G | 33                 | JA0                   |          | 0.50      | 25.0               | 170   | —                                  | EMVH630ADA330MJA0G |                    |                    |                    |
| 330                   | JA0      | 0.30      | 4.5                | 296   | —                                  | EMVH160ADA331MJA0G | 47                 | HA0                   |          | 0.70      | 35.0               | 100   | —                                  | EMVH630ADA470MHA0G |                    |                    |                    |
| 470                   | KE0      | 0.14      | 2.1                | 750   | —                                  | EMVH160ARA471MKE0S | 47                 | JA0                   |          | 0.50      | 25.0               | 170   | —                                  | EMVH630ADA470MJA0G |                    |                    |                    |
| 680                   | KE0      | 0.14      | 2.1                | 750   | —                                  | EMVH160ARA681MKE0S | 100                | KE0                   |          | 0.25      | 12.5               | 500   | —                                  | EMVH630ARA101MKE0S |                    |                    |                    |
| 680                   | LH0      | 0.10      | 1.5                | 1,000 | —                                  | EMVH160□DA681MLH0S | 220                | KG5                   |          | 0.20      | 10.0               | 600   | —                                  | EMVH630ARA221MKG5S |                    |                    |                    |
| 1,000                 | MH0      | 0.10      | 1.5                | 1,200 | —                                  | EMVH160□DA102MMH0S | 330                | LH0                   |          | 0.18      | 9.0                | 820   | —                                  | EMVH630□DA331MLH0S |                    |                    |                    |
| 2,200                 | MH0      | 0.10      | 1.5                | 1,200 | —                                  | EMVH160□DA222MMH0S | 470                | LN0                   |          | 0.11      | 5.5                | 1,100 | —                                  | EMVH630□DA471MLN0S |                    |                    |                    |
| 25                    | 33       | F60       | 1.6                | 24.0  | 69                                 | —                  | EMVH250ADA330MF60G | 80                    |          | 10        | HA0                | 0.75  | 50.0                               | 70                 | —                  | EMVH800ADA100MHA0G |                    |
|                       | 47       | F80       | 0.90               | 14.0  | 110                                | —                  | EMVH250ADA470MF80G |                       |          | 22        | HA0                | 0.75  | 50.0                               | 70                 | —                  | EMVH800ADA220MHA0G |                    |
|                       | 47       | H63       | 0.90               | 14.0  | 110                                | —                  | EMVH250ADA470MH63G |                       |          | 22        | JA0                | 0.55  | 35.0                               | 115                | —                  | EMVH800ADA220MJA0G |                    |
|                       | 100      | F80       | 0.90               | 14.0  | 110                                | —                  | EMVH250ADA101MF80G |                       | 33       | HA0       | 0.75               | 50.0  | 70                                 | —                  | EMVH800ADA330MHA0G |                    |                    |
|                       | 100      | H63       | 0.90               | 14.0  | 110                                | —                  | EMVH250ADA101MH63G |                       | 33       | JA0       | 0.55               | 35.0  | 115                                | —                  | EMVH800ADA330MJA0G |                    |                    |
|                       | 100      | HA0       | 0.40               | 6.0   | 220                                | —                  | EMVH250ADA101MHA0G |                       | 47       | JA0       | 0.55               | 35.0  | 115                                | —                  | EMVH800ADA470MJA0G |                    |                    |
|                       | 220      | HA0       | 0.40               | 6.0   | 220                                | —                  | EMVH250ADA221MHA0G |                       | 100      | 10        | HA0                | 0.75  | 50.0                               | 70                 | —                  | EMVH101ADA100MHA0G |                    |
|                       | 220      | JA0       | 0.30               | 4.5   | 296                                | —                  | EMVH250ADA221MJA0G |                       |          | 22        | HA0                | 0.75  | 50.0                               | 70                 | —                  | EMVH101ADA220MHA0G |                    |
|                       | 330      | JA0       | 0.30               | 4.5   | 296                                | —                  | EMVH250ADA331MJA0G |                       |          | 22        | JA0                | 0.55  | 35.0                               | 115                | —                  | EMVH101ADA220MJA0G |                    |
|                       | 330      | KE0       | 0.14               | 2.1   | 750                                | —                  | EMVH250ARA331MKE0S |                       |          | 33        | JA0                | 0.55  | 35.0                               | 115                | —                  | EMVH101ADA330MJA0G |                    |
|                       | 470      | KE0       | 0.14               | 2.1   | 750                                | —                  | EMVH250ARA471MKE0S |                       |          | 47        | KE0                | 0.33  | 16.5                               | 450                | —                  | EMVH101ARA470MKE0S |                    |
|                       | 470      | LH0       | 0.10               | 1.5   | 1,000                              | —                  | EMVH250□DA471MLH0S |                       |          | 68        | KG5                | 0.26  | 13.0                               | 550                | —                  | EMVH101ARA680MKG5S |                    |
|                       | 680      | LH0       | 0.10               | 1.5   | 1,000                              | —                  | EMVH250□DA681MLH0S |                       |          | 100       | LH0                | 0.24  | 12.0                               | 650                | —                  | EMVH101□DA101MLH0S |                    |
|                       | 680      | MH0       | 0.10               | 1.5   | 1,200                              | —                  | EMVH250□DA681MMH0S |                       |          | 220       | MN0                | 0.16  | 8.0                                | 950                | —                  | EMVH101□DA221MMN0S |                    |
| 1,000                 | MN0      | 0.058     | 0.87               | 1,550 | —                                  | EMVH250□DA102MMN0S | 160                | 10                    |          | KE0       | —                  | —     | —                                  | 100                | EMVH161ARA100MKE0S |                    |                    |
| 35                    | 10       | F60       | 1.6                | 24.0  | 69                                 | —                  |                    | EMVH350ADA100MF60G    |          | 22        | LH0                | —     | —                                  | —                  | 180                | EMVH161□DA220MLH0S |                    |
|                       | 22       | F60       | 1.6                | 24.0  | 69                                 | —                  |                    | EMVH350ADA220MF60G    |          | 33        | MH0                | —     | —                                  | —                  | 245                | EMVH161□DA330MMH0S |                    |
|                       | 33       | F80       | 0.90               | 14.0  | 110                                | —                  |                    | EMVH350ADA330MF80G    |          | 68        | MN0                | —     | —                                  | —                  | 380                | EMVH161□DA680MMN0S |                    |
|                       | 33       | H63       | 0.90               | 14.0  | 110                                | —                  |                    | EMVH350ADA330MH63G    |          | 200       | 10                 | KE0   | —                                  | —                  | —                  | 100                | EMVH201ARA100MKE0S |
|                       | 47       | F80       | 0.90               | 14.0  | 110                                | —                  |                    | EMVH350ADA470MF80G    |          |           | 22                 | LH0   | —                                  | —                  | —                  | 180                | EMVH201□DA220MLH0S |
|                       | 47       | H63       | 0.90               | 14.0  | 110                                | —                  | EMVH350ADA470MH63G | 33                    | LN0      |           | —                  | —     | —                                  | 250                | EMVH201□DA330MLN0S |                    |                    |
|                       | 47       | HA0       | 0.40               | 6.0   | 220                                | —                  | EMVH350ADA470MHA0G | 33                    | MH0      |           | —                  | —     | —                                  | 245                | EMVH201□DA330MMH0S |                    |                    |
|                       | 100      | HA0       | 0.40               | 6.0   | 220                                | —                  | EMVH350ADA101MHA0G | 47                    | MN0      |           | —                  | —     | —                                  | 315                | EMVH201□DA470MMN0S |                    |                    |
|                       | 100      | JA0       | 0.30               | 4.5   | 296                                | —                  | EMVH350ADA101MJA0G | 250                   | 10       |           | KG5                | —     | —                                  | —                  | 110                | EMVH251ARA100MKG5S |                    |
|                       | 220      | JA0       | 0.30               | 4.5   | 296                                | —                  | EMVH350ADA221MJA0G |                       | 22       | LN0       | —                  | —     | —                                  | 200                | EMVH251□DA220MLN0S |                    |                    |
|                       | 330      | KE0       | 0.14               | 2.1   | 750                                | —                  | EMVH350ARA331MKE0S |                       | 22       | MH0       | —                  | —     | —                                  | 205                | EMVH251□DA220MMH0S |                    |                    |
|                       | 330      | LH0       | 0.10               | 1.5   | 1,000                              | —                  | EMVH350□DA331MLH0S |                       | 33       | MN0       | —                  | —     | —                                  | 260                | EMVH251□DA330MMN0S |                    |                    |
|                       | 470      | KG5       | 0.11               | 1.5   | 900                                | —                  | EMVH350ARA471MKG5S |                       | 400      | 4.7       | KE0                | —     | —                                  | —                  | 70                 | EMVH401ARA4R7MKE0S |                    |
|                       | 470      | LH0       | 0.10               | 1.5   | 1,000                              | —                  | EMVH350□DA471MLH0S |                       |          | 6.8       | LH0                | —     | —                                  | —                  | 100                | EMVH401□DA6R8MLH0S |                    |
| 680                   | MH0      | 0.10      | 1.5                | 1,200 | —                                  | EMVH350□DA681MMH0S | 10                 | LN0                   |          | —         | —                  | —     | 140                                | EMVH401□DA100MLN0S |                    |                    |                    |
| 50                    | 10       | F60       | 2.8                | 42.0  | 51                                 | —                  | EMVH500ADA100MF60G | 10                    |          | MH0       | —                  | —     | —                                  | 135                | EMVH401□DA100MMH0S |                    |                    |
|                       | 10       | H63       | 1.6                | 30.0  | 83                                 | —                  | EMVH500ADA100MH63G | 450                   |          | 3.3       | KG5                | —     | —                                  | —                  | 65                 | EMVH451ARA3R3MKG5S |                    |
|                       | 22       | F80       | 2.0                | 30.0  | 83                                 | —                  | EMVH500ADA220MF80G |                       |          | 4.7       | LH0                | —     | —                                  | —                  | 85                 | EMVH451□DA4R7MLH0S |                    |
|                       | 22       | H63       | 1.6                | 30.0  | 83                                 | —                  | EMVH500ADA220MH63G |                       | 10       | MN0       | —                  | —     | —                                  | 145                | EMVH451□DA100MMN0S |                    |                    |

□ : Enter the appropriate terminal code.

◆RATED RIPPLE CURRENT MULTIPLIERS

● Frequency Multipliers

| Rated voltage (V <sub>dc</sub> ) | Size code  | Frequency(Hz)   |      |      |      |      |
|----------------------------------|------------|-----------------|------|------|------|------|
|                                  |            | Capacitance(μF) | 120  | 1k   | 10k  | 100k |
| 10 to 100                        | F60 to JA0 | 10              | 0.66 | 0.86 | 0.93 | 1.00 |
|                                  |            | 22 to 470       | 0.93 | 0.97 | 1.00 | 1.00 |
|                                  |            | 47 to 100       | 0.40 | 0.75 | 0.90 | 1.00 |
|                                  | KE0 to MN0 | 220 to 470      | 0.50 | 0.85 | 0.94 | 1.00 |
|                                  |            | 680 to 1,000    | 0.60 | 0.87 | 0.95 | 1.00 |
|                                  |            | 2,200 to 3,300  | 0.75 | 0.90 | 0.95 | 1.00 |
|                                  |            | 4,700           | 0.85 | 0.95 | 0.98 | 1.00 |
| 160 to 450                       | KE0 to MN0 | 3.3 to 33       | 1.00 | 1.50 | 1.75 | 1.80 |
|                                  |            | 47 to 68        | 1.00 | 1.30 | 1.40 | 1.50 |

The endurance of capacitors is reduced with internal heating produced by ripple current at the rate of halving the lifetime with every 5°C rise.

When long life performance is required in actual use, the rms ripple current has to be reduced.

# Mouser Electronics

Authorized Distributor

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## [United Chemi-Con \(UCC\):](#)

[EMVH630GTR471MLN0S](#) [EMVH630BTR471MLN0S](#) [EMVH630GTR721MMN0S](#) [EMVH350GTR681MMH0S](#)  
[EMVH101ADA330MJA0G](#) [EMVH201GTR470MMN0S](#) [EMVH350GTR331MLH0S](#) [EMVH250ADA331MJA0G](#)  
[EMVH101GTR221MMN0S](#) [EMVH250ADA330MF60G](#) [EMVH350ADA470MHA0G](#) [EMVH350ARA331MKD5G](#)  
[EMVH500ADA470MJA0G](#) [EMVH630ADA100MF80G](#) [EMVH100GDA222MMH0S](#) [EMVH100GDA472MMN0S](#)  
[EMVH500GDA471MMH0S](#) [EMVH350ARA471MKG5S](#) [EMVH250ARA471MKE0S](#) [EMVH250ADA470MF80G](#)  
[EMVH101GDA101MLH0S](#) [EMVH201ARA100MKE0S](#) [EMVH251ARA100MKG5S](#) [EMVH161ARA100MKE0S](#)  
[EMVH101ADA100MHA0G](#) [EMVH451GDA100MMN0S](#) [EMVH401GDA100MLN0S](#) [EMVH500GDA221MLH0S](#)  
[EMVH401GDA100MMH0S](#) [EMVH101ADA220MJA0G](#) [EMVH161GDA220MLH0S](#) [EMVH201GDA220MLH0S](#)  
[EMVH251GDA220MLN0S](#) [EMVH630ADA100MH63G](#) [EMVH160GDA681MLH0S](#) [EMVH250GDA681MMH0S](#)  
[EMVH350GDA331MLH0S](#) [EMVH160ARA681MKE0S](#) [EMVH500GDA331MLH0S](#) [EMVH101ARA470MKE0S](#)  
[EMVH201GDA470MMN0S](#) [EMVH100GDA332MMH0S](#) [EMVH500ADA330MHA0G](#) [EMVH500ARA331MKG5S](#)  
[EMVH401ARA4R7MKE0S](#) [EMVH451GDA4R7MLH0S](#) [EMVH201GDA330MMH0S](#) [EMVH350ADA101MJA0G](#)  
[EMVH250ADA101MHA0G](#) [EMVH350ADA100MF60G](#) [EMVH250GDA102MMN0S](#) [EMVH350ADA330MH63G](#)  
[EMVH500ARA221MKE0S](#) [EMVH100ADA221MHA0G](#) [EMVH100GDA222MLH0S](#) [EMVH500ADA220MF80G](#)  
[EMVH251GDA220MMH0S](#) [EMVH160GDA102MMH0S](#) [EMVH350ADA330MF80G](#) [EMVH350ARA331MKE0S](#)  
[EMVH250ARA331MKE0S](#) [EMVH630GDA471MLN0S](#) [EMVH401GDA6R8MLH0S](#) [EMVH350ADA220MF60G](#)  
[EMVH250ADA221MJA0G](#) [EMVH101ARA680MKG5S](#) [EMVH161GDA680MMN0S](#) [EMVH101GDA221MMN0S](#)  
[EMVH630GDA331MLH0S](#) [EMVH630ADA330MJA0G](#) [EMVH250ADA470MH63G](#) [EMVH451ARA3R3MKG5S](#)  
[EMVH630ADA220MHA0G](#) [EMVH630ARA221MKG5S](#) [EMVH630ARA101MKE0S](#) [EMVH500ARA101MKE0S](#)  
[EMVH100ADA101MH63G](#) [EMVH500ADA100MF60G](#) [EMVH100ARA102MKE0S](#) [EMVH201GDA330MLN0S](#)  
[EMVH251GDA330MMN0S](#) [EMVH161GDA330MMH0S](#) [EMVH160ADA470MF60G](#) [EMVH250GDA471MLH0S](#)  
[EMVH160ARA471MKE0S](#) [EMVH350GDA471MLH0S](#) [EMVH350GDA681MMH0S](#) [EMVH250GDA681MLH0S](#)  
[EMVH160GDA222MMH0S](#) [EMVH500ADA220MH63G](#) [EMVH500BTR471MMH0S](#) [EMVH630GTR331MLH0S](#)  
[EMVH250ADA221MHA0G](#) [EMVH800ADA470MJA0G](#) [EMVH100ADA221MHA0N](#) [EMVH500GTR471MMH0S](#)  
[EMVH630ADA470MHA0G](#) [EMVH350ADA101MHA0G](#) [EMVH630ADA470MJA0G](#) [EMVH250ADA101MF80G](#)