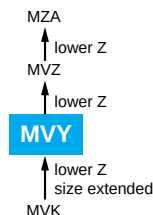


# Alchip®MVY Series

- Expand up to  $\phi 18$  case size
- Expand up to 100V<sub>dc</sub>
- Low impedance, 105°C 1000 to 5000-hours-life
- For digital equipment, especially DC-DC converters and VRM
- Solvent-proof type except 80 & 100V<sub>dc</sub> (see PRECAUTIONS AND GUIDELINES)
- Pb-free design

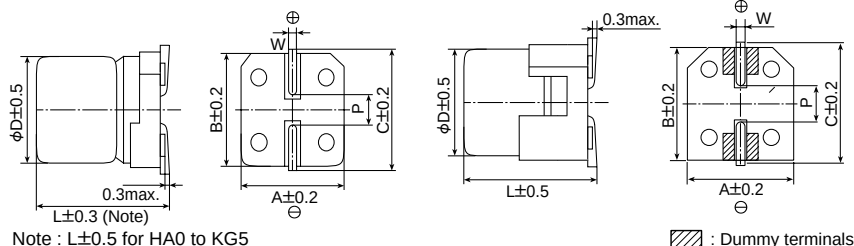


## SPECIFICATIONS

| Items                                                  | Characteristics                                                                                                                                              |                                                                              |      |      |      |      |                                      |      |      |      |      |                                                                                                                |
|--------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|------|------|------|------|--------------------------------------|------|------|------|------|----------------------------------------------------------------------------------------------------------------|
| Category                                               |                                                                                                                                                              |                                                                              |      |      |      |      |                                      |      |      |      |      |                                                                                                                |
| Temperature Range                                      | -55 to +105℃ (6.3 to 63V <sub>dc</sub> )    -40 to +105℃ (80 & 100V <sub>dc</sub> )                                                                          |                                                                              |      |      |      |      |                                      |      |      |      |      |                                                                                                                |
| Rated Voltage Range                                    | 6.3 to 100V <sub>dc</sub>                                                                                                                                    |                                                                              |      |      |      |      |                                      |      |      |      |      |                                                                                                                |
| Capacitance Tolerance                                  | ±20% (M) (at 20℃, 120Hz)                                                                                                                                     |                                                                              |      |      |      |      |                                      |      |      |      |      |                                                                                                                |
| Leakage Current                                        | I=0.01CV or 3μA, whichever is greater.<br>Where, I : Max. leakage current (μA), C : Nominal capacitance (μF), V : Rated voltage (V) (at 20℃ after 2 minutes) |                                                                              |      |      |      |      |                                      |      |      |      |      |                                                                                                                |
| Dissipation Factor (tanδ)                              | Rated voltage (V <sub>dc</sub> )                                                                                                                             |                                                                              | 6.3V | 10V  | 16V  | 25V  | 35V                                  | 50V  | 63V  | 80V  | 100V | When nominal capacitance exceeds 1000μF, add 0.02 to the value above for each 1000μF increase. (at 20℃, 120Hz) |
|                                                        | tanδ (Max.)                                                                                                                                                  | D55 to F80                                                                   | 0.24 | 0.20 | 0.16 | 0.14 | 0.12                                 | 0.12 | —    | —    | —    |                                                                                                                |
|                                                        |                                                                                                                                                              | HA0 & JA0                                                                    | 0.28 | 0.24 | 0.20 | 0.16 | 0.14                                 | 0.12 | —    | —    | —    |                                                                                                                |
|                                                        |                                                                                                                                                              | KE0 to MN0                                                                   | 0.26 | 0.22 | 0.18 | 0.16 | 0.14                                 | 0.12 | 0.14 | 0.10 | 0.10 |                                                                                                                |
| Low Temperature Characteristics (Max. Impedance Ratio) | Rated voltage (V <sub>dc</sub> )                                                                                                                             |                                                                              | 6.3V | 10V  | 16V  | 25V  | 35V                                  | 50V  | 63V  | 80V  | 100V | (at 120Hz)                                                                                                     |
|                                                        | Z(-40℃)/Z(+20℃)                                                                                                                                              | D55 to JA0                                                                   | 3    | 2    | 2    | 2    | 2                                    | —    | —    | —    |      |                                                                                                                |
|                                                        |                                                                                                                                                              | KE0 to MN0                                                                   | 10   | 8    | 6    | 4    | 3                                    | 3    | 3    | 3    | 3    |                                                                                                                |
|                                                        |                                                                                                                                                              |                                                                              |      |      |      |      |                                      |      |      |      |      |                                                                                                                |
| Endurance                                              | The following specifications shall be satisfied when the capacitors are restored to 20℃ after the rated voltage is applied for specified time at 105℃.       |                                                                              |      |      |      |      |                                      |      |      |      |      |                                                                                                                |
|                                                        | Time                                                                                                                                                         | D55 to F80 : 1000 hours<br>HA0 & JA0 : 2000 hours<br>KE0 to MN0 : 5000 hours |      |      |      |      |                                      |      |      |      |      |                                                                                                                |
|                                                        | Rated voltage                                                                                                                                                | 6.3V <sub>dc</sub> (D55 to JA0)                                              |      |      |      |      | 6.3 to 100V <sub>dc</sub>            |      |      |      |      |                                                                                                                |
|                                                        | Capacitance change                                                                                                                                           | ≤±30% of the initial value                                                   |      |      |      |      | ≤±20% of the initial value           |      |      |      |      |                                                                                                                |
|                                                        | D.F. (tanδ)                                                                                                                                                  | ≤300% of the initial specified value                                         |      |      |      |      | ≤200% of the initial specified value |      |      |      |      |                                                                                                                |
|                                                        | Leakage current                                                                                                                                              | ≤The initial specified value                                                 |      |      |      |      | ≤The initial specified value         |      |      |      |      |                                                                                                                |
|                                                        |                                                                                                                                                              |                                                                              |      |      |      |      |                                      |      |      |      |      |                                                                                                                |
| Shelf Life                                             | The following specifications shall be satisfied when the capacitors are restored to 20℃ after exposing them for 1000 hours at 105℃ without voltage applied.  |                                                                              |      |      |      |      |                                      |      |      |      |      |                                                                                                                |
|                                                        | Rated voltage                                                                                                                                                | 6.3V <sub>dc</sub> (D55 to JA0)                                              |      |      |      |      | 6.3 to 100V <sub>dc</sub>            |      |      |      |      |                                                                                                                |
|                                                        | Capacitance change                                                                                                                                           | ≤±30% of the initial value                                                   |      |      |      |      | ≤±20% of the initial value           |      |      |      |      |                                                                                                                |
|                                                        | D.F. (tanδ)                                                                                                                                                  | ≤300% of the initial specified value                                         |      |      |      |      | ≤200% of the initial specified value |      |      |      |      |                                                                                                                |
|                                                        | Leakage current                                                                                                                                              | ≤The initial specified value                                                 |      |      |      |      | ≤The initial specified value         |      |      |      |      |                                                                                                                |
|                                                        |                                                                                                                                                              |                                                                              |      |      |      |      |                                      |      |      |      |      |                                                                                                                |

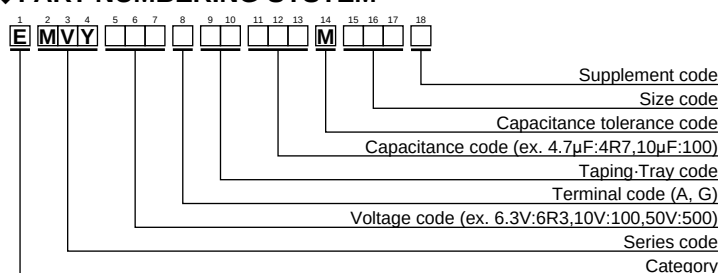
## DIMENSIONS [mm]

- Terminal Code : A
- Size code : D55 to KG5
- Terminal Code : G
- Size code : LH0 to MN0



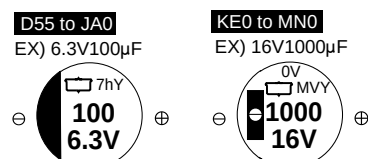
| Size code | φD   | L    | A    | B    | C    | W          | P   |
|-----------|------|------|------|------|------|------------|-----|
| D55       | 4    | 5.2  | 4.3  | 4.3  | 5.1  | 0.5 to 0.8 | 1.0 |
| E55       | 5    | 5.2  | 5.3  | 5.3  | 5.9  | 0.5 to 0.8 | 1.4 |
| F55       | 6.3  | 5.2  | 6.6  | 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 |
| 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 |
| MN0       | 18   | 21.5 | 19.0 | 19.0 | 20.0 | 1.0 to 1.3 | 6.5 |

## PART NUMBERING SYSTEM



Please refer to "A guide to global code (surface mount type)"

## MARKING



## ◆STANDARD RATINGS

□□ is non solvent-proof (80/100V<sub>dc</sub>).

| WV (V <sub>dc</sub> ) | Cap (μF) | Size code | Impedance (Ω <sub>max</sub> /20°C, 100kHz) | Rated ripple current (mA <sub>rms</sub> /105°C, 100kHz) | Part No.           | WV (V <sub>dc</sub> ) | Cap (μF) | Size code | Impedance (Ω <sub>max</sub> /20°C, 100kHz) | Rated ripple current (mA <sub>rms</sub> /105°C, 100kHz) | Part No.            |
|-----------------------|----------|-----------|--------------------------------------------|---------------------------------------------------------|--------------------|-----------------------|----------|-----------|--------------------------------------------|---------------------------------------------------------|---------------------|
| 6.3                   | 22       | D55       | 3.0                                        | 60                                                      | EMVY6R3ADA220MD55G | 25                    | 330      | HA0       | 0.30                                       | 450                                                     | EMVY250ADA331MHA0G  |
|                       | 33       | E55       | 1.8                                        | 95                                                      | EMVY6R3ADA330ME55G |                       | 470      | JA0       | 0.15                                       | 670                                                     | EMVY250ADA471MJA0G  |
|                       | 47       | E55       | 1.8                                        | 95                                                      | EMVY6R3ADA470ME55G |                       | 1000     | LH0       | 0.054                                      | 1260                                                    | EMVY250GTR102MLH0S  |
|                       | 100      | F55       | 1.0                                        | 140                                                     | EMVY6R3ADA101MF55G |                       | 1000     | MH0       | 0.054                                      | 1350                                                    | EMVY250GTR102MMH0S  |
|                       | 220      | F55       | 1.0                                        | 140                                                     | EMVY6R3ADA221MF55G |                       | 2200     | LN0       | 0.038                                      | 1630                                                    | EMVY250GTR222MLN0S  |
|                       | 330      | F80       | 0.34                                       | 280                                                     | EMVY6R3ADA331MF80G |                       | 2200     | MN0       | 0.038                                      | 1750                                                    | EMVY250GTR222MMN0S  |
|                       | 470      | HA0       | 0.30                                       | 450                                                     | EMVY6R3ADA471MHA0G | 35                    | 3300     | MN0       | 0.038                                      | 1750                                                    | EMVY250GTR332MMN0S  |
|                       | 680      | HA0       | 0.30                                       | 450                                                     | EMVY6R3ADA681MHA0G |                       | 4.7      | D55       | 3.0                                        | 60                                                      | EMVY350ADA47R7MD55G |
|                       | 1000     | HA0       | 0.30                                       | 450                                                     | EMVY6R3ADA102MHA0G |                       | 10       | E55       | 1.8                                        | 95                                                      | EMVY350ADA100ME55G  |
|                       | 1500     | JA0       | 0.15                                       | 670                                                     | EMVY6R3ADA152MJA0G |                       | 22       | F55       | 1.0                                        | 140                                                     | EMVY350ADA220MF55G  |
|                       | 2200     | KE0       | 0.07                                       | 820                                                     | EMVY6R3ADA222MKE0S |                       | 33       | F55       | 1.0                                        | 140                                                     | EMVY350ADA330MF55G  |
|                       | 2200     | LH0       | 0.054                                      | 1260                                                    | EMVY6R3GTR222MLH0S |                       | 47       | F55       | 1.0                                        | 140                                                     | EMVY350ADA470MF55G  |
|                       | 3300     | KG5       | 0.060                                      | 950                                                     | EMVY6R3ADA332MKG5S |                       | 68       | F80       | 0.34                                       | 280                                                     | EMVY350ADA680MF80G  |
|                       | 3300     | MH0       | 0.054                                      | 1350                                                    | EMVY6R3GTR332MMH0S |                       | 100      | HA0       | 0.30                                       | 450                                                     | EMVY350ADA101MHA0G  |
|                       | 4700     | LN0       | 0.038                                      | 1630                                                    | EMVY6R3GTR472MLN0S |                       | 220      | HA0       | 0.30                                       | 450                                                     | EMVY350ADA221MHA0G  |
|                       | 4700     | MH0       | 0.054                                      | 1350                                                    | EMVY6R3GTR472MMH0S |                       | 330      | JA0       | 0.15                                       | 670                                                     | EMVY350ADA331MJA0G  |
|                       | 6800     | LN0       | 0.038                                      | 1630                                                    | EMVY6R3GTR682MLN0S |                       | 470      | KE0       | 0.070                                      | 820                                                     | EMVY350ADA471MKE0S  |
|                       | 6800     | MN0       | 0.038                                      | 1750                                                    | EMVY6R3GTR682MMN0S |                       | 470      | LH0       | 0.054                                      | 1260                                                    | EMVY350GTR471MLH0S  |
|                       | 8200     | MN0       | 0.038                                      | 1750                                                    | EMVY6R3GTR822MMN0S |                       | 1000     | LH0       | 0.054                                      | 1260                                                    | EMVY350GTR102MLH0S  |
| 10                    | 22       | E55       | 1.8                                        | 95                                                      | EMVY100ADA220ME55G |                       | 1000     | MH0       | 0.054                                      | 1350                                                    | EMVY350GTR102MMH0S  |
|                       | 33       | E55       | 1.8                                        | 95                                                      | EMVY100ADA330ME55G |                       | 2200     | MN0       | 0.038                                      | 1750                                                    | EMVY350GTR222MMN0S  |
|                       | 47       | F55       | 1.0                                        | 140                                                     | EMVY100ADA470MF55G | 50                    | 1.0      | D55       | 5.0                                        | 30                                                      | EMVY500ADA1R0MD55G  |
|                       | 100      | F55       | 1.0                                        | 140                                                     | EMVY100ADA101MF55G |                       | 2.2      | D55       | 5.0                                        | 30                                                      | EMVY500ADA2R2MD55G  |
|                       | 220      | F80       | 0.34                                       | 280                                                     | EMVY100ADA221MF80G |                       | 3.3      | D55       | 5.0                                        | 30                                                      | EMVY500ADA3R3MD55G  |
|                       | 330      | HA0       | 0.30                                       | 450                                                     | EMVY100ADA331MHA0G |                       | 4.7      | E55       | 3.0                                        | 50                                                      | EMVY500ADA4R7ME55G  |
|                       | 470      | HA0       | 0.30                                       | 450                                                     | EMVY100ADA471MHA0G |                       | 10       | F55       | 2.0                                        | 70                                                      | EMVY500ADA100MF55G  |
|                       | 680      | JA0       | 0.15                                       | 670                                                     | EMVY100ADA681MJA0G |                       | 22       | F55       | 2.0                                        | 70                                                      | EMVY500ADA220MF55G  |
|                       | 1000     | JA0       | 0.15                                       | 670                                                     | EMVY100ADA102MJA0G |                       | 33       | F80       | 0.6                                        | 170                                                     | EMVY500ADA330MF80G  |
|                       | 2200     | KG5       | 0.060                                      | 950                                                     | EMVY100ADA222MKG5S |                       | 47       | F80       | 0.6                                        | 170                                                     | EMVY500ADA470MF80G  |
|                       | 2200     | LH0       | 0.054                                      | 1260                                                    | EMVY100GTR222MLH0S |                       | 68       | HA0       | 0.6                                        | 300                                                     | EMVY500ADA680MHA0G  |
|                       | 3300     | LH0       | 0.054                                      | 1260                                                    | EMVY100GTR332MLH0S |                       | 100      | HA0       | 0.6                                        | 300                                                     | EMVY500ADA101MHA0G  |
|                       | 3300     | MH0       | 0.054                                      | 1350                                                    | EMVY100GTR332MMH0S |                       | 220      | JA0       | 0.30                                       | 500                                                     | EMVY500ADA221MJA0G  |
|                       | 4700     | LN0       | 0.038                                      | 1630                                                    | EMVY100GTR472MLN0S |                       | 330      | KE0       | 0.11                                       | 650                                                     | EMVY500ADA331MKE0S  |
|                       | 4700     | MN0       | 0.038                                      | 1750                                                    | EMVY100GTR472MMN0S |                       | 330      | LH0       | 0.087                                      | 900                                                     | EMVY500GTR331MLH0S  |
|                       | 6800     | MN0       | 0.038                                      | 1750                                                    | EMVY100GTR682MMN0S |                       | 470      | LH0       | 0.087                                      | 900                                                     | EMVY500GTR471MLH0S  |
| 16                    | 10       | D55       | 3.0                                        | 60                                                      | EMVY160ADA100MD55G |                       | 470      | MH0       | 0.087                                      | 1060                                                    | EMVY500GTR471MMH0S  |
|                       | 22       | E55       | 1.8                                        | 95                                                      | EMVY160ADA220ME55G |                       | 1000     | MN0       | 0.050                                      | 1520                                                    | EMVY500GTR102MMN0S  |
|                       | 33       | F55       | 1.0                                        | 140                                                     | EMVY160ADA330MF55G | 63                    | 68       | KE0       | 0.19                                       | 500                                                     | EMVY630ADA680MKE0S  |
|                       | 47       | F55       | 1.0                                        | 140                                                     | EMVY160ADA470MF55G |                       | 100      | KE0       | 0.19                                       | 500                                                     | EMVY630ADA101MKE0S  |
|                       | 100      | F55       | 1.0                                        | 140                                                     | EMVY160ADA101MF55G |                       | 220      | KE0       | 0.19                                       | 500                                                     | EMVY630ADA221MKE0S  |
|                       | 220      | F80       | 0.34                                       | 280                                                     | EMVY160ADA221MF80G |                       | 220      | LH0       | 0.12                                       | 845                                                     | EMVY630GTR221MLH0S  |
|                       | 330      | HA0       | 0.30                                       | 450                                                     | EMVY160ADA331MHA0G |                       | 330      | LH0       | 0.12                                       | 845                                                     | EMVY630GTR331MLH0S  |
|                       | 470      | HA0       | 0.30                                       | 450                                                     | EMVY160ADA471MHA0G |                       | 330      | MH0       | 0.12                                       | 905                                                     | EMVY630GTR331MMH0S  |
|                       | 680      | JA0       | 0.15                                       | 670                                                     | EMVY160ADA681MJA0G |                       | 470      | LN0       | 0.085                                      | 1100                                                    | EMVY630GTR471MLN0S  |
|                       | 1000     | KE0       | 0.070                                      | 820                                                     | EMVY160ADA102MKE0S |                       | 470      | MH0       | 0.12                                       | 905                                                     | EMVY630GTR471MMH0S  |
|                       | 1000     | LH0       | 0.054                                      | 1260                                                    | EMVY160GTR102MLH0S | 80                    | 100      | KE0       | 0.33                                       | 450                                                     | EMVY800ADA101MKE0S  |
|                       | 2200     | LH0       | 0.054                                      | 1260                                                    | EMVY160GTR222MLH0S |                       | 220      | KG5       | 0.26                                       | 550                                                     | EMVY800ADA221MKG5S  |
|                       | 2200     | MH0       | 0.054                                      | 1350                                                    | EMVY160GTR222MMH0S |                       | 330      | LN0       | 0.16                                       | 900                                                     | EMVY800GTR331MLN0S  |
|                       | 3300     | LN0       | 0.038                                      | 1630                                                    | EMVY160GTR332MLN0S |                       | 330      | MH0       | 0.24                                       | 700                                                     | EMVY800GTR331MMH0S  |
|                       | 3300     | MH0       | 0.054                                      | 1350                                                    | EMVY160GTR332MMH0S |                       | 470      | MN0       | 0.16                                       | 950                                                     | EMVY800GTR471MMN0S  |
| 25                    | 4700     | MN0       | 0.038                                      | 1750                                                    | EMVY160GTR472MMN0S | 100                   | 47       | KE0       | 0.33                                       | 450                                                     | EMVY101ADA470MKE0S  |
|                       | 10       | E55       | 1.8                                        | 95                                                      | EMVY250ADA100ME55G |                       | 68       | KE0       | 0.33                                       | 450                                                     | EMVY101ADA680MKE0S  |
|                       | 22       | F55       | 1.0                                        | 140                                                     | EMVY250ADA220MF55G |                       | 100      | KE0       | 0.33                                       | 450                                                     | EMVY101ADA101MKE0S  |
|                       | 33       | F55       | 1.0                                        | 140                                                     | EMVY250ADA330MF55G |                       | 100      | LH0       | 0.24                                       | 650                                                     | EMVY101GTR101MLH0S  |
|                       | 47       | F55       | 1.0                                        | 140                                                     | EMVY250ADA470MF55G |                       | 220      | LN0       | 0.16                                       | 900                                                     | EMVY101GTR221MLN0S  |
|                       | 100      | F80       | 0.34                                       | 280                                                     | EMVY250ADA101MF80G |                       | 220      | MH0       | 0.24                                       | 700                                                     | EMVY101GTR221MMH0S  |
| 25                    | 220      | HA0       | 0.3                                        | 450                                                     | EMVY250ADA221MHA0G |                       | 330      | MN0       | 0.16                                       | 950                                                     | EMVY101GTR331MMN0S  |

□□ : Taping / Tray code



**Стандарт  
Электрон  
Связь**

Мы молодая и активно развивающаяся компания в области поставок электронных компонентов. Мы поставляем электронные компоненты отечественного и импортного производства напрямую от производителей и с крупнейших складов мира.

Благодаря сотрудничеству с мировыми поставщиками мы осуществляем комплексные и плановые поставки широчайшего спектра электронных компонентов.

Собственная эффективная логистика и склад в обеспечивает надежную поставку продукции в точно указанные сроки по всей России.

Мы осуществляем техническую поддержку нашим клиентам и предпродажную проверку качества продукции. На все поставляемые продукты мы предоставляем гарантию .

Осуществляем поставки продукции под контролем ВП МО РФ на предприятия военно-промышленного комплекса России , а также работаем в рамках 275 ФЗ с открытием отдельных счетов в уполномоченном банке. Система менеджмента качества компании соответствует требованиям ГОСТ ISO 9001.

Минимальные сроки поставки, гибкие цены, неограниченный ассортимент и индивидуальный подход к клиентам являются основой для выстраивания долгосрочного и эффективного сотрудничества с предприятиями радиоэлектронной промышленности, предприятиями ВПК и научно-исследовательскими институтами России.

С нами вы становитесь еще успешнее!

**Наши контакты:**

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