

Upgrade!

Alchip™-MHB Series

- ESR : Less than MVH
- Endurance : 2,000 hours at 125°C
- Rated Voltage Range : 10 to 35V
- Nominal capacitance range : 47 to 470μF
- Solvent resistant type
- RoHS Compliant

MHB

↑ Lower ESR
MVH

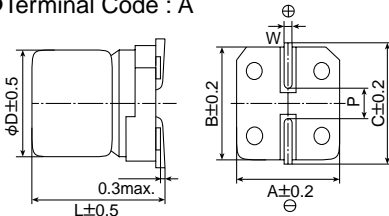


◆ **SPECIFICATIONS**

| Items | Characteristics | | | | | |
|---|---|--------------------------------------|------|------|------|---------------|
| Category Temperature Range | -40 to +125°C | | | | | |
| Rated Voltage Range | 10 to 35V _{dc} | | | | | |
| Capacitance Tolerance | ±20%(M) (20°C, 120Hz) | | | | | |
| Leakage Current | I=0.01CV Where, I : Max. leakage current (μA), C : Nominal capacitance (μF), V : Rated voltage (V) (at 20°C after 2 minutes) | | | | | |
| Dissipation Factor (tanδ) | Rated voltage(V _{dc}) | 10V | 16V | 25V | 35V | (20°C, 120Hz) |
| | tanδ (Max.) | 0.24 | 0.20 | 0.16 | 0.14 | |
| Low Temperature Characteristics (Max. impedance Ratio) | Rated voltage(V _{dc}) | 10V | 16V | 25V | 35V | (120Hz) |
| | Z(-25°C)/Z(+20°C) | 3 | 2 | 2 | 2 | |
| | Z(-40°C)/Z(+20°C) | 4 | 3 | 3 | 3 | |
| Endurance | The following specifications shall be satisfied when the capacitors are restored to 20°C after the rated voltage is applied for 2,000 hours at 125°C. | | | | | |
| | Capacitance change | ≤±30% of the initial value | | | | |
| | D.F. (tanδ) | ≤300% of the initial specified value | | | | |
| | Leakage current | ≤The initial specified value | | | | |
| | ESR(-40°C, 400kHz) | HA0 : ≤6Ω JA0 : ≤4.5Ω | | | | |
| Shelf Life | The following specifications shall be satisfied when the capacitors are restored to 20°C after exposing them for 1,000 hours 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. | | | | | |
| | Capacitance change | ≤±30% of the initial value | | | | |
| | D.F. (tanδ) | ≤300% of the initial specified value | | | | |
| | Leakage current | ≤The initial specified value | | | | |

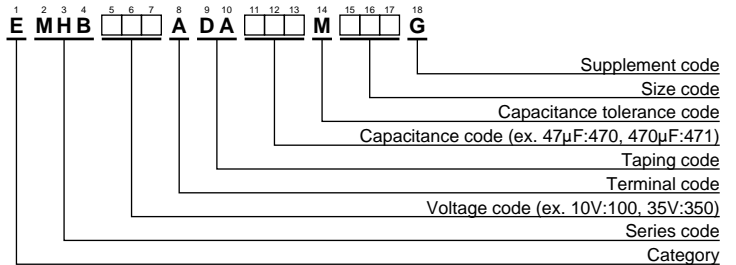
◆ **DIMENSIONS [mm]**

● Terminal Code : A



| Size code | D | L | A | B | C | W | P |
|-----------|----|------|------|------|------|------------|-----|
| 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 |

◆ **PART NUMBERING SYSTEM**



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

◆ **MARKING**

EX) 16V220μF



● **Rated voltage symbol**

| Rated voltage (V _{dc}) | Symbol |
|----------------------------------|--------|
| 10 | A |
| 16 | C |
| 25 | E |
| 35 | V |

◆ **STANDARD RATINGS**

| WV(V _{dc}) | Cap(μF) | Size code | ESR (Ωmax/100k to 400kHz) | | Rated ripple current (mArms/125°C, 100k to 400kHz) | Part No. |
|----------------------|---------|-----------|---------------------------|-------|--|--------------------|
| | | | 20°C | -40°C | | |
| 10 | 330 | HA0 | 0.3 | 3.0 | 240 | EMHB100ADA331MHA0G |
| | 470 | JA0 | 0.2 | 2.0 | 330 | EMHB100ADA471MJA0G |
| 16 | 100 | HA0 | 0.3 | 3.0 | 240 | EMHB160ADA101MHA0G |
| | 220 | HA0 | 0.3 | 3.0 | 240 | EMHB160ADA221MHA0G |
| 25 | 100 | HA0 | 0.3 | 3.0 | 240 | EMHB250ADA101MHA0G |
| | 220 | HA0 | 0.3 | 3.0 | 240 | EMHB250ADA221MHA0G |
| | 330 | JA0 | 0.2 | 2.0 | 330 | EMHB250ADA331MJA0G |
| 35 | 47 | HA0 | 0.3 | 3.0 | 240 | EMHB350ADA470MHA0G |
| | 100 | HA0 | 0.3 | 3.0 | 240 | EMHB350ADA101MHA0G |
| | 100 | JA0 | 0.2 | 2.0 | 330 | EMHB350ADA101MJA0G |
| | 220 | JA0 | 0.2 | 2.0 | 330 | EMHB350ADA221MJA0G |