

Alchip™-MZK Series

- Endurance : 5,000 hours at 105°C
- Low impedance
- Rated voltage range : 6.3 to 35V
- Nominal capacitance range : 10 to 150μF
- Suitable for high reliability products
- Solvent resistant type (see PRECAUTIONS AND GUIDELINES)
- RoHS Compliant

MVY → Longer life → **MZK**
P76

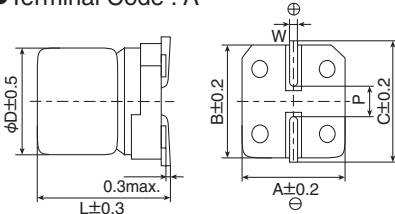


◆ SPECIFICATIONS

| Items | Characteristics | | | | | | |
|---|---|---------------------------------------|------|------|------|------|------------------|
| Category Temperature Range | -25 to +105°C | | | | | | |
| Rated Voltage Range | 6.3 to 35V _{dc} | | | | | | |
| Capacitance Tolerance | ±20%(M) (at 20°C, 120Hz) | | | | | | |
| Leakage Current | I=0.01CV or 3μA, whichever is greater 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}) | 6.3V | 10V | 16V | 25V | 35V | (at 20°C, 120Hz) |
| | tanδ (Max.) | 0.32 | 0.28 | 0.26 | 0.16 | 0.14 | |
| Low Temperature Characteristics (Max. Impedance Ratio) | Rated voltage (V _{dc}) | 6.3V | 10V | 16V | 25V | 35V | (at 120Hz) |
| | Z(-10°C)/Z(+20°C) | 4 | 3 | 2 | 2 | 2 | |
| Endurance | The following specifications shall be satisfied when the capacitors are restored to 20°C after the rated voltage is applied for 5,000 hours at 105°C. | | | | | | |
| | Capacitance change | ≤ ±30% of the initial value | | | | | |
| | D.F. (tanδ) | ≤ 300% of the initial specified value | | | | | |
| | Leakage current | ≤ The initial specified value | | | | | |
| Shelf Life | The following specifications shall be satisfied when the capacitors are restored to 20°C after exposing them for 1,000 hours at 105°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 | | | | | |

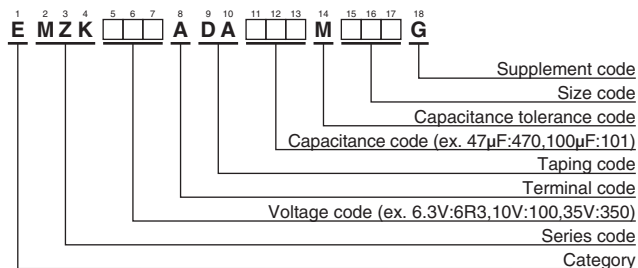
◆ DIMENSIONS [mm]

- Terminal Code : A



| Size code | D | L | A | B | C | W | P |
|-----------|-----|-----|-----|-----|-----|------------|-----|
| E61 | 5 | 5.8 | 5.3 | 5.3 | 5.9 | 0.5 to 0.8 | 1.4 |
| F61 | 6.3 | 5.8 | 6.6 | 6.6 | 7.2 | 0.5 to 0.8 | 1.9 |

◆ PART NUMBERING SYSTEM



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

◆ MARKING

EX) 35V47μF



- Rated voltage symbol

| Rated voltage (V _{dc}) | 6.3 | 10 | 16 | 25 | 35 |
|----------------------------------|-----|----|----|----|----|
| Symbol | j | A | C | E | V |

Alchip™-MZK Series
◆STANDARD RATINGS

| WV (V _{dc}) | Cap (μF) | Size code | Impedance (Ω _{max} /20°C, 100kHz) | Rated ripple current (mA _{rms} /105°C, 100kHz) | Part No. |
|-----------------------|----------|-----------|--|---|--------------------|
| 6.3 | 100 | E61 | 2.2 | 95 | EMZK6R3ADA101ME61G |
| 10 | 150 | F61 | 1.1 | 140 | EMZK100ADA151MF61G |
| 16 | 33 | E61 | 2.2 | 95 | EMZK160ADA330ME61G |
| | 47 | E61 | 2.2 | 95 | EMZK160ADA470ME61G |
| | 100 | F61 | 1.1 | 140 | EMZK160ADA101MF61G |
| 25 | 68 | F61 | 1.1 | 140 | EMZK250ADA680MF61G |
| 35 | 10 | E61 | 2.2 | 95 | EMZK350ADA100ME61G |
| | 10 | F61 | 1.1 | 140 | EMZK350ADA100MF61G |
| | 22 | E61 | 2.2 | 95 | EMZK350ADA220ME61G |
| | 22 | F61 | 1.1 | 140 | EMZK350ADA220MF61G |
| | 33 | F61 | 1.1 | 140 | EMZK350ADA330MF61G |
| | 47 | F61 | 1.1 | 140 | EMZK350ADA470MF61G |

◆RATED RIPPLE CURRENT MULTIPLIERS

● Frequency Multipliers

| Frequency(Hz) | 120 | 1k | 10k | 100k |
|--------------------------|------|------|------|------|
| 6.3 to 35V _{dc} | 0.40 | 0.75 | 0.90 | 1.00 |

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.