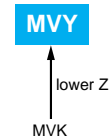


Upgrade!
Alchip® **MVY** Series

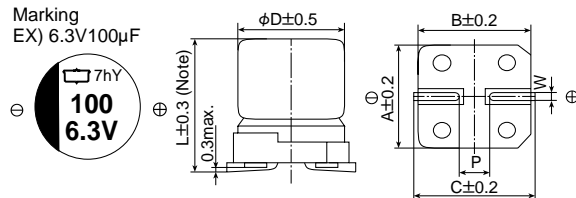
- F80 size (φ6.3×8.0max) is newly lined-up
- 50V_{dc} is newly lined-up
- Low impedance, 105°C 1000 to 2000 hour-load life
- For digital equipment, especially DC-DC converters and VRM



◆SPECIFICATIONS

| Items | Characteristics | | | | | | | | |
|--|---|------------|--------------------------------------|------|------|------|--------------------------------------|------|------------------|
| Operating Temperature Range | -55 to +105°C | | | | | | | | |
| Rated Voltage Range | 6.3 to 50V _{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 | 50V | (at 20°C, 120Hz) |
| | tanδ (Max.) | D55 to H63 | 0.24 | 0.20 | 0.16 | 0.14 | 0.12 | 0.12 | |
| | | H10 & J10 | 0.28 | 0.24 | 0.20 | 0.16 | 0.14 | 0.12 | |
| Low Temperature Characteristics (Max. Impedance Ratio) | Rated Voltage (V _{dc}) | | 6.3V | 10V | 16V | 25V | 35V | 50V | (at 120Hz) |
| | Z(-40°C)/Z(+20°C) | | 3 | 2 | 2 | 2 | 2 | 2 | |
| | Z(-55°C)/Z(+20°C) | | 5 | 4 | 4 | 3 | 3 | 3 | |
| Load Life | The following specifications shall be satisfied when the capacitors are restored to 20°C after the rated voltage is applied for 1000 hours (H10 & J10 sizes 2000 hours) at 105°C. | | | | | | | | |
| | Rated Voltage (V _{dc}) | | 6.3V _{dc} | | | | 10 to 50V _{dc} | | |
| | Capacitance change | | ≤±30% of the initial value | | | | ≤±20% of the initial value | | |
| | DF (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°C after exposing them for 1000 hours at 105°C without voltage applied. | | | | | | | | |
| | Rated Voltage (V _{dc}) | | 6.3V _{dc} | | | | 10 to 50V _{dc} | | |
| | Capacitance change | | ≤±30% of the initial value | | | | ≤±20% of the initial value | | |
| | DF (tanδ) | | ≤300% of the initial specified value | | | | ≤200% of the initial specified value | | |
| | Leakage current | | ≤The initial specified value | | | | ≤The initial specified value | | |
| | | | | | | | | | |

◆DIMENSIONS (Terminal type=VC) [mm]



| Case code | D | 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 |
| H63 | 8 | 6.3 | 8.3 | 8.3 | 9.0 | 0.5 to 0.8 | 2.3 |
| H10 | 8 | 10.0 | 8.3 | 8.3 | 9.0 | 0.7 to 1.1 | 3.1 |
| J10 | 10 | 10.0 | 10.3 | 10.3 | 11.0 | 0.7 to 1.1 | 4.5 |

Note : L±0.5 for φ8×6 (H63), φ8×10 (H10) & φ10×10 (J10).

◆PART NUMBERING SYSTEM

| | | | | | | |
|-----|----|----|-----|---|-----|------------------------|
| MVY | 16 | VC | 100 | M | F55 | TP |
| | | | | | | With tape |
| | | | | | | Case code |
| | | | | | | Cap tolerance (±20%) |
| | | | | | | Nominal cap code |
| | | | | | | Terminal type (VC) |
| | | | | | | Rated voltage in volts |
| | | | | | | Series name |

| Capacitance | Code |
|-------------|------|
| 4.7μF | 4R7 |
| 10μF | 10 |
| 100μF | 100 |
| 1000μF | 1000 |

◆STANDARD RATINGS

| μF | V _{dc} | 6.3 | 10 | 16 | 25 | 35 | 50 |
|-------|-----------------|-----|----|----|----|----|-------------|
| 1.0 | | | | | | | D55 5.0 30 |
| 2.2 | | | | | | | D55 5.0 30 |
| 3.3 | | | | | | | D55 5.0 30 |
| 4.7 | | | | | | | E55 3.0 50 |
| 10 | | | | | | | F55 2.0 70 |
| 22 | | | | | | | H63 1.2 120 |
| 33 | | | | | | | F80 0.6 170 |
| 47 | | | | | | | H10 0.6 300 |
| 68 | | | | | | | |
| 100 | | | | | | | |
| 220 | | | | | | | |
| 330 | | | | | | | |
| 470 | | | | | | | |
| 1,000 | | | | | | | |
| 1,500 | | | | | | | |

Note : → Use next higher voltage part.