

Snap-In Aluminum Electrolytic Capacitors



MUD Series

MERITEK

FEATURES

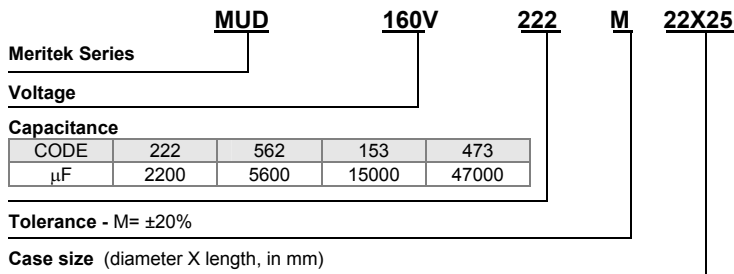
- PCB Mounting, Super low profile
- Lengths are all 20mm, Down size
- High CV density
- Load life of 2,000 hours at 105°C



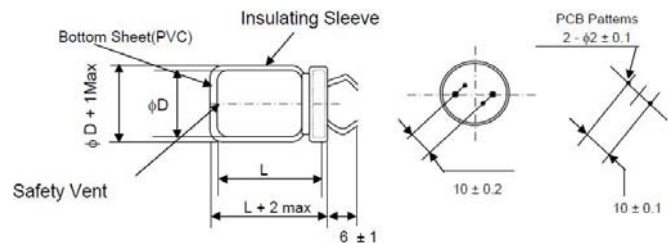
SPECIFICATIONS

| Item | Characteristic | | | | | | | | | |
|---|---|----------------------------|----------------------------------|--------------|--|-----------------|-------------------------------|----------------|----|---|
| Operating Temp Range | 160V-250V: -40°C to +105°C 350V-400V: -25°C to +105°C | | | | | | | | | |
| Rated Working Voltage | 160 to 400VDC | | | | | | | | | |
| Capacitance Tolerance | ±20% (M) | | | | | | | | | |
| Leakage Current (20°C) | $I \leq 0.02CV$ or 2mA, whichever is less (at 20°C after 5 minutes) I = Leakage current (μ A) C = Nominal capacitance (μ F) V = Rated voltage (VDC) | | | | | | | | | |
| Dissipation Factor Tan δ (120Hz, 20°C) | <table border="1"> <tr> <td>Tanδ (120Hz, 20°C)</td> <td>160 to 250</td> <td>350 to 400</td> </tr> <tr> <td></td> <td>0.15</td> <td>0.20</td> </tr> </table> | Tan δ (120Hz, 20°C) | 160 to 250 | 350 to 400 | | 0.15 | 0.20 | | | |
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| | 0.15 | 0.20 | | | | | | | | |
| Low Temperature Characteristics | Impedance ratio at 120 Hz <table border="1"> <tr> <td>WV</td> <td>160 to 250</td> <td>350 to 400</td> </tr> <tr> <td>Z -25°C/Z 20°C</td> <td>4</td> <td>8</td> </tr> <tr> <td>Z -40°C/Z 20°C</td> <td>12</td> <td>-</td> </tr> </table> | WV | 160 to 250 | 350 to 400 | Z -25°C/Z 20°C | 4 | 8 | Z -40°C/Z 20°C | 12 | - |
| WV | 160 to 250 | 350 to 400 | | | | | | | | |
| Z -25°C/Z 20°C | 4 | 8 | | | | | | | | |
| Z -40°C/Z 20°C | 12 | - | | | | | | | | |
| Load Life | After applying rated working voltage for 2000 hours at 105°C and then being stabilized at +20°C, capacitors shall meet following limits. <table border="1"> <tr> <td>Capacitance change</td> <td>Within ±20% of the initial value</td> </tr> <tr> <td>Tanδ</td> <td>≤ ±200% of the initial specified value</td> </tr> <tr> <td>Leakage current</td> <td>≤ The initial specified value</td> </tr> </table> | Capacitance change | Within ±20% of the initial value | Tan δ | ≤ ±200% of the initial specified value | Leakage current | ≤ The initial specified value | | | |
| Capacitance change | Within ±20% of the initial value | | | | | | | | | |
| Tan δ | ≤ ±200% of the initial specified value | | | | | | | | | |
| Leakage current | ≤ The initial specified value | | | | | | | | | |
| Shelf Life | After storage for 1000 hours at 105°C with no voltage applied and then being stabilized at +20°C, capacitors shall meet following limits. <table border="1"> <tr> <td>Capacitance change</td> <td>Within ±20% of the initial value</td> </tr> <tr> <td>Tanδ</td> <td>≤ 150% of the initial specified value</td> </tr> <tr> <td>Leakage current</td> <td>≤ The initial specified value</td> </tr> </table> | Capacitance change | Within ±20% of the initial value | Tan δ | ≤ 150% of the initial specified value | Leakage current | ≤ The initial specified value | | | |
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| Tan δ | ≤ 150% of the initial specified value | | | | | | | | | |
| Leakage current | ≤ The initial specified value | | | | | | | | | |

PART NUMBERING SYSTEM



DIMENSIONS



RIPPLE CURRENT COEFFICIENT

Frequency

| Freq (Hz) | 50 | 120 | 1K | 10K | 100K |
|------------|------|-----|------|------|------|
| 160 to 250 | 0.80 | 1.0 | 1.25 | 1.40 | 1.50 |
| 350 to 400 | 0.84 | 1.0 | 1.15 | 1.20 | 1.32 |

Temperature

| Temperature | ≤ 45°C | 60°C | 85°C | 105°C |
|-------------|--------|------|------|-------|
| Factor | 2.40 | 2.20 | 1.65 | 1.00 |

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| W.V Cap (μF) | 160(2C) | | 200(2D) | | 250(2E) | |
|-----------------|---------|----------------|---------|----------------|---------|----------------|
| | SIZE | I _R | SIZE | I _R | SIZE | I _R |
| 100 | | | | | 22x20 | 0.42 |
| 150 | | | 22x20 | 0.45 | 25x20 | 0.5 |
| 180 | 22x20 | 0.60 | | | 30x20 | 0.70 |
| 220 | 25x20 | 0.65 | 25x20 | 0.70 | 30x20 | 0.85 |
| 270 | 30x20 | 0.80 | 30x20 | 0.90 | 35x20 | 1.00 |
| 330 | 30x20 | 1.00 | 30x20 | 1.00 | 35x20 | 1.05 |
| 390 | 35x20 | 1.05 | 35x20 | 1.10 | | |
| 470 | 35x20 | 1.30 | 35x20 | 1.20 | | |

| W.V Cap (μF) | 350(2V) | | 400(2G) | |
|-----------------|---------|----------------|---------|----------------|
| | SIZE | I _R | SIZE | I _R |
| 56 | | | 25x20 | 0.30 |
| 68 | 22x20 | 0.35 | 25x20 | 0.40 |
| 82 | 25x20 | 0.40 | 30x20 | 0.45 |
| 100 | 25x20 | 0.43 | 30x20 | 0.48 |
| 120 | 30x20 | 0.46 | 35x20 | 0.53 |
| 150 | 35x20 | 0.50 | 35x20 | 0.55 |

I_R: Maximum Permissible Ripple Current [A(rms) at 105°C, 120Hz]