

**SURFACE MOUNT UNIDIRECTIONAL
TRANSIENT VOLTAGE SUPPRESSORS**

**STAND-OFF VOLTAGE - 5.0 to 51 Volts
POWER DISSIPATION - 200 WATTS**

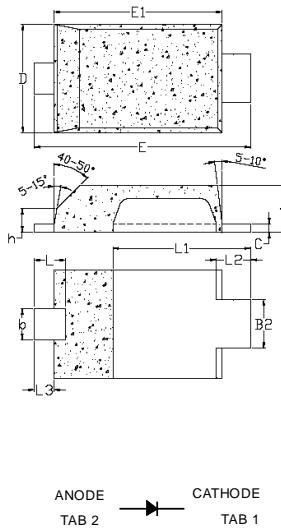
FEATURES

- For surface mounted applications
- Reliable low cost construction utilizing molded plastic technique
- Plastic material has UL flammability classification 94V-O
- Typical IR less than 1uA above 10V
- Fast response time: typically less than 1.0ns
- IEC6100-4-2, >30KV(air); >30KV(Contact)
- RoHS compliant
- AEC-Q101 qualified
- PPAP capable
- Automotive grade



MECHANICAL DATA

- Case Material: "Green" molding compound, UL flammability classification 94V-0, (No Br. Sb. Cl.)
- Terminals: Lead Free Plating (Matte Tin Finish)
- Component in accordance to RoHS 2002/95/EC
- Polarity : Cathode designated by TAB1
- Weight : 10 mg



| DO-222AA | | |
|----------|------|------|
| DIM. | MIN. | MAX. |
| A | 0.80 | 0.95 |
| b | 0.40 | 0.65 |
| b2 | 0.70 | 1.00 |
| C | 0.10 | 0.25 |
| D | 1.75 | 2.05 |
| E | 3.60 | 3.90 |
| E1 | 2.80 | 3.10 |
| h | 0.35 | 0.50 |
| L | 0.50 | 0.80 |
| L1 | 2.10 | 2.60 |
| L2 | 0.45 | 0.75 |
| L3 | 0.20 | 0.50 |

All Dimensions in millimeter

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

| CHARACTERISTICS | SYMBOLS | VALUE | UNIT |
|--|-----------|-------------|-------|
| PEAK POWER DISSIPATION AT $T_J = 25^\circ\text{C}$, $T_P = 1\text{ms}$ (Note 1) | P_{PK} | Minimum 200 | WATTS |
| Non repetitive Peak Forward Surge Current 8.3ms single half sine-wave @ $T_J = 25^\circ\text{C}$ | I_{FSM} | 25 | AMPS. |
| Operating Temperature Range | T_J | -55 to +175 | °C |
| Storage Temperature Range | T_{STG} | -55 to +175 | °C |

NOTES : 1. Non-repetitive current pulse, per Fig. 3 and derated above $T_J = 25^\circ\text{C}$ per Fig.2.

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RATING AND CHARACTERISTIC CURVES
ALT2MF SERIES

LITEON

FIG.1 - PEAK PULSE POWER DERATING CURVE

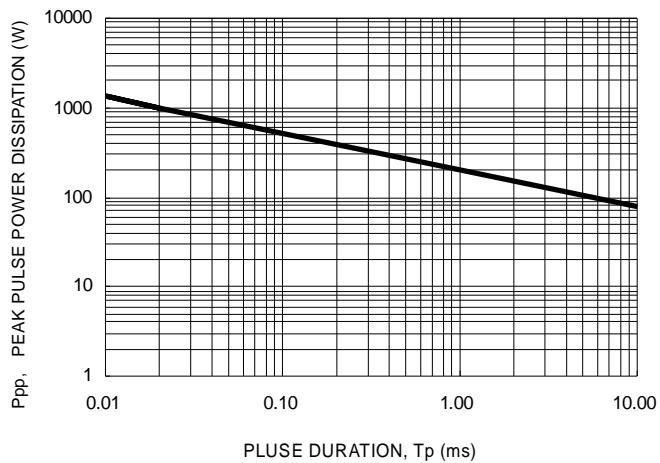


FIG.2 - PEAK PULSE POWER DERATING CURVE

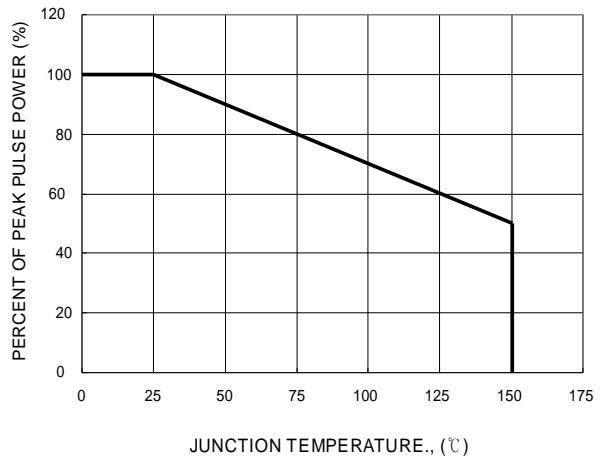


FIG.3 - PULSE WAVEFORM

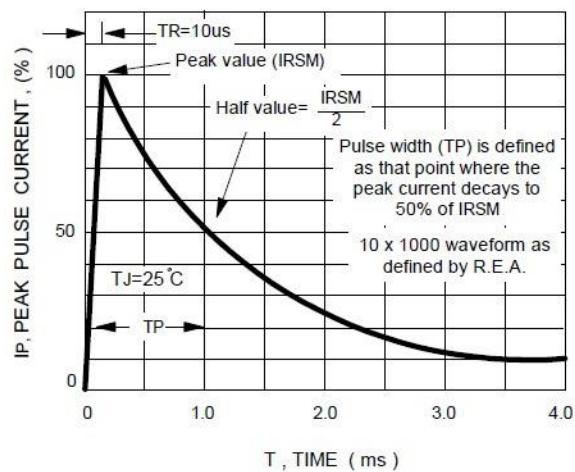
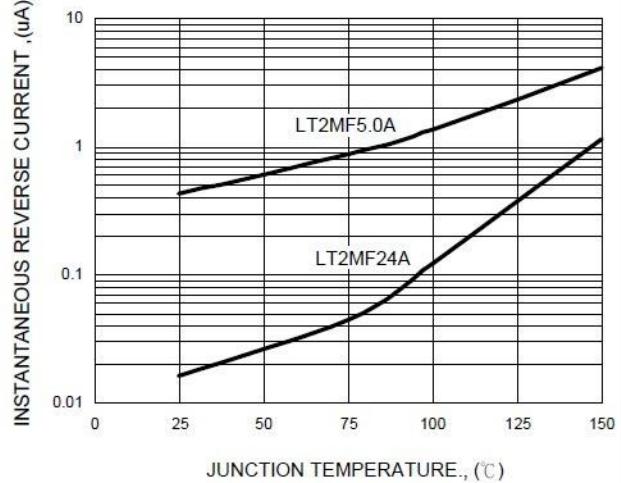


FIG.4 - TYPICAL REVERSE CHARACTERISTICS



| Device Uni-directional | Marking | Working Peak Reverse Voltage | Breakdown voltage | | | Maximum Reverse Leakage at VRWM | Maximum Reverse Surge Current | Maximum Reverse Voltage at I _{RS} M (Clamping Voltage) |
|---------------------------|---------|---------------------------------------|-------------------|---------|---------|--|-------------------------------------|---|
| | | | VRWM(V) | Min.(V) | Max.(V) | | | |
| ALT2MF5.0A | AMFB | 5.0 | 6.40 | 7.07 | 10 | 50 | 21.7 | 9.2 |
| ALT2MF6.0A | AMFC | 6.0 | 6.67 | 7.37 | 10 | 50 | 19.4 | 10.3 |
| ALT2MF8.5A | AMFD | 8.5 | 9.44 | 10.43 | 1 | 10 | 13.9 | 14.4 |
| ALT2MF10A | AMFE | 10 | 11.10 | 12.3 | 1 | 5.0 | 11.8 | 17.0 |
| ALT2MF12A | AMFF | 12 | 13.3 | 14.7 | 1 | 1.0 | 10.1 | 19.9 |
| ALT2MF13A | AMFG | 13 | 14.4 | 15.9 | 1 | 1.0 | 9.3 | 21.5 |
| ALT2MF15A | AMFP | 15 | 16.7 | 18.5 | 1 | 1.0 | 8.2 | 24.4 |
| ALT2MF16A | AMFH | 16 | 17.1 | 18.9 | 1 | 1.0 | 7.7 | 26.0 |
| ALT2MF18A | AMFI | 18 | 20.0 | 22.1 | 1 | 1.0 | 6.9 | 29.2 |
| ALT2MF20A | AMFJ | 20 | 22.2 | 24.5 | 1 | 1.0 | 6.2 | 32.4 |
| ALT2MF22A | AMFQ | 22 | 24.4 | 27.0 | 1 | 1.0 | 5.6 | 35.5 |
| ALT2MF24A | AMFK | 24 | 25.7 | 28.4 | 1 | 1.0 | 5.1 | 38.9 |
| ALT2MF26A | AMFL | 26 | 28.9 | 31.9 | 1 | 1.0 | 4.8 | 42.1 |
| ALT2MF28A | AMFM | 28 | 31.1 | 34.4 | 1 | 1.0 | 4.4 | 45.4 |
| ALT2MF30A | AMFN | 30 | 33.3 | 36.8 | 1 | 1.0 | 4.1 | 48.4 |
| ALT2MF36A | AMFO | 36 | 40.0 | 44.2 | 1 | 1.0 | 3.4 | 58.1 |
| ALT2MF40A | AMFR | 40 | 44.4 | 49.1 | 1 | 1.0 | 3.1 | 64.5 |
| ALT2MF43A | AMFS | 43 | 47.8 | 52.8 | 1 | 1.0 | 2.88 | 69.4 |
| ALT2MF45A | AMFT | 45 | 50.0 | 55.3 | 1 | 1.0 | 2.75 | 72.7 |
| ALT2MF48A | AMFU | 48 | 53.3 | 58.9 | 1 | 1.0 | 2.58 | 77.4 |
| ALT2MF51A | AMFV | 51 | 56.7 | 62.7 | 1 | 1.0 | 2.43 | 82.4 |

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