



Surface mount transient voltage suppressor power 550 watts

Breakdown Voltage: 7.5 V

FEATURES

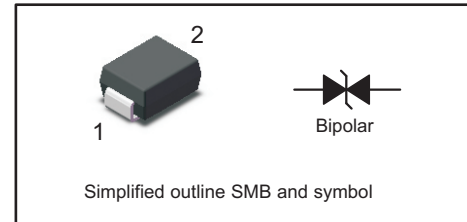
- For surface mounted applications in order to optimize board space.
- Low profile package
- Glass passivated junction
- Excellent clamping capability
- Low incremental surge resistance

MECHANICAL DATA

- Case: SMB
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.1g / 0.0034oz

PINNING

| PIN | DESCRIPTION |
|-----|-------------|
| 1 | Cathode |
| 2 | Anode |



Maximum Ratings and Electrical characteristics

Ratings at 25 °C ambient temperature unless otherwise specified.

| Parameter | Symbol | Value | Unit |
|---|--------------------------|----------------------|------|
| Peak Pulse Power Dissipation on 10/1000 us waveform (Note1,Note2, Fig.1). | P_{PPM} | 550 | W |
| Peak Pulse Current on 10/1000 us waveform (Note 1, Fig 3) | I_{PPM} | see Table 1 | A |
| ESD Voltage per IEC61000-4-2 Contact Air | V_{ESD1} V_{ESD2} | ± 30 ± 30 | kV |
| Operating Junction Temperature and Storage Temperature Range | T_j, T_{stg} | -55 ~ +150 | °C |

NOTES:

1. Non-repetitive current pulse, per Fig.3 and derated above $T_A = 25^\circ\text{C}$ per Fig. 2.
2. Mounted on 5 mm² (0.13mm thick) land areas.



Characteristics at Ta = 25°C

Table 1

| Type | Marking | V _{RWM} | Breakdown Voltage | | Test Current | Reverse Leakage | Max. Clamp Voltage | Peak Pulse Current |
|--------------|---------|------------------|----------------------------------|------|----------------|-----------------------------------|----------------------------------|--------------------|
| | | | V _{BR} @ I _T | | I _T | I _R @ V _{RWM} | V _C @ I _{PP} | I _{PP} |
| | | | Min | Max | | | | |
| BI | BI | V | V | V | mA | μA | V | A |
| P5.5SMB7.5CA | TV5C | 6.4 | 7.13 | 7.88 | 10 | 500 | 11.3 | 48.5 |

Fig.1 Peak Pulse Power Rating Curve

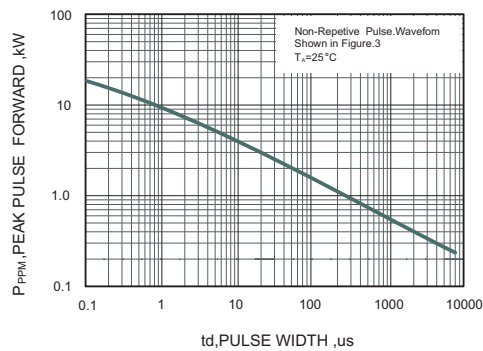


Fig.2 Forward Current Derating Curve

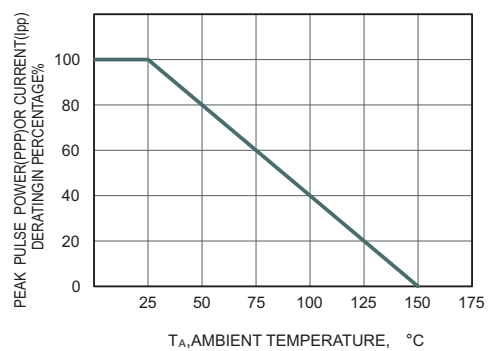
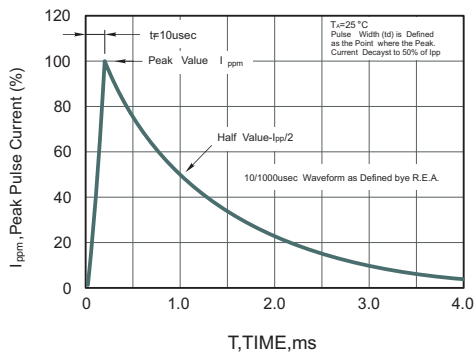


Fig.3 Pulse Waveform

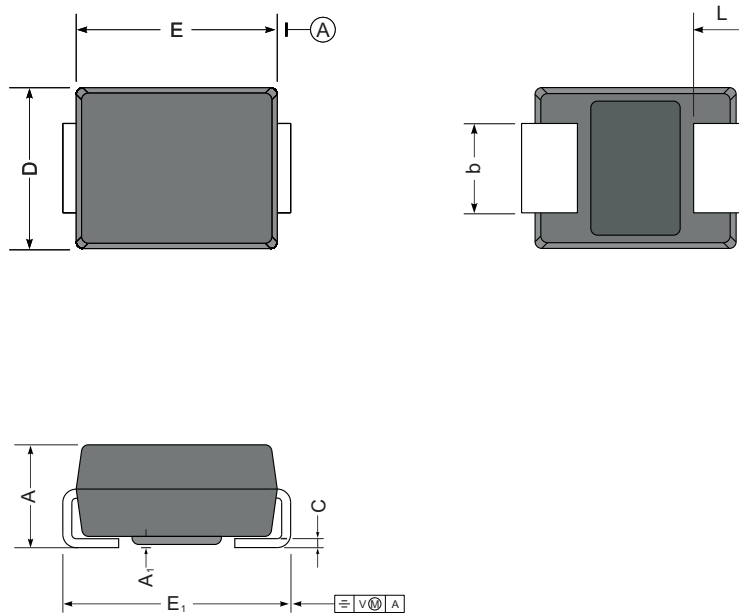




PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

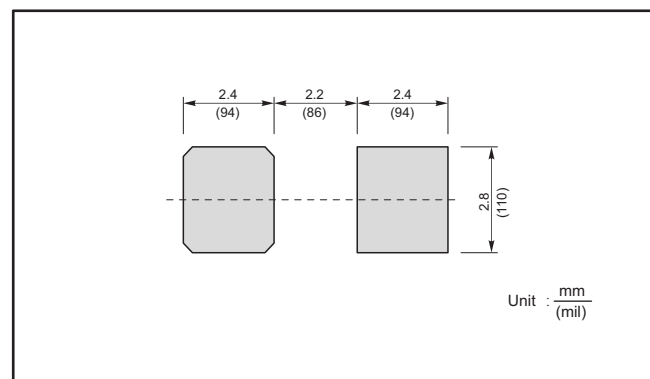
SMB



SMB mechanical data

| UNIT | | A | E | D | E ₁ | A ₁ | L | C | b |
|------|-----|------|------|------|----------------|----------------|-----|-------|------|
| mm | max | 2.44 | 4.70 | 3.94 | 5.59 | 0.20 | 1.5 | 0.305 | 2.11 |
| | min | 2.13 | 4.06 | 3.3 | 5.08 | 0.05 | 0.8 | 0.152 | 1.91 |
| mil | max | 96 | 185 | 155 | 220 | 7.9 | 59 | 12 | 83 |
| | min | 84 | 160 | 130 | 200 | 2.0 | 32 | 6 | 75 |

The recommended mounting pad size





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