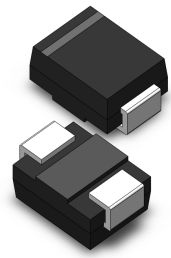
# SM6T15A

## SURFACE MOUNT TRANSIENT VOLTAGE SUPPRESSOR

**VOLTAGE RANGE: 15 V**
**POWER: 600Watts**



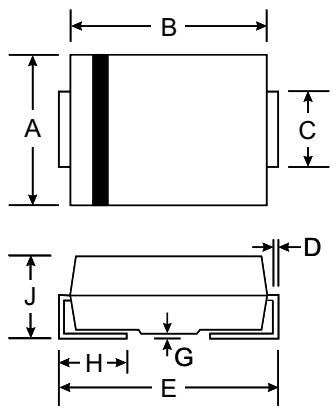
## Features

- Glass Passivated Die Construction
- Uni- and Bi-Directional Versions Available
- Excellent Clamping Capability
- Fast Response Time
- Plastic Material: UL Flammability Classification Rating 94V-0

## Mechanical Data

- Case: SMB/DO-214AA, Molded Plastic
- Terminals: Solder Plated, Solderable per MIL-STD-750, Method 2026
- Polarity: Cathode Band or Cathode Notch
- Marking: Type Number
- Weight: 0.093 grams (approx.)

RoHS COMPLIANT




| SMB(DO-214AA) | | |
|---|---|---|
| **Dim** | **Min** | **Max** |
| **A** | 3.30 | 3.94 |
| **B** | 4.06 | 4.70 |
| **C** | 1.91 | 2.21 |
| **D** | 0.15 | 0.31 |
| **E** | 5.00 | 5.59 |
| **G** | 0.10 | 0.20 |
| **H** | 0.76 | 1.52 |
| **J** | 2.00 | 2.62 |
| **All Dimensions in mm** | | |

## Maximum Ratings $T_A$ = 25°C unless otherwise specified

| Characteristic | Symbol | Value | Unit |
|---|---|---|---|
| Peak Pulse Power Dissipation (Non repetitive current pulse derated above $T_A$ = 25°C) (Note 1) | $P_{PK}$ | 600 | W |
| Peak Forward Surge Current, 8.3ms Single Half Sine Wave Superimposed on Rated Load (JEDEC Method) (Notes 1, 2, & 3) | $I_{FSM}$ | 100 | A |
| Instantaneous Forward Voltage @ $I_{PP}$ = 35A ($V_{BR}$<100V) ($V_{BR}$≥100V) (Notes 1, 2, & 3) | $V_F$ | 3.5<br>5.0 | V<br>V |
| Operating and Storage Temperature Range | $T_j$, $T_{STG}$ | -55 to +150 | °C |

Notes: 1. Valid provided that terminals are kept at ambient temperature.
2. Measured with 8.3ms single half sine-wave. Duty cycle = 4 pulses per minute maximum.
3. Unidirectional units only.

| TYPE | Marking | Reverse Stand-Off Voltage | Breakdown Voltage Min. @$I_T$ | Breakdown Voltage Max. @ $I_T$ | Test Current | Maximum Clamping Voltage @$I_{PP}$ | Peak Pulse Current | Reverse Leakage @$V_{RWM}$ |
|---|---|---|---|---|---|---|---|---|
| | | $V_{RWM}$(V) | $V_{BR\ MIN}$(V) | $V_{BR\ MAX}$(V) | $I_T$ (mA) | $V_C$(V) | $I_{PP}$(A) | $I_R$(uA) |
| SM6T15A | LG | 12.8 | 14.3 | 15.8 | 1.0 | 21.2 | 28.3 | 5.0 |

## Ratings and Characteristic Curves $T_A$ =25°C unless otherwise noted

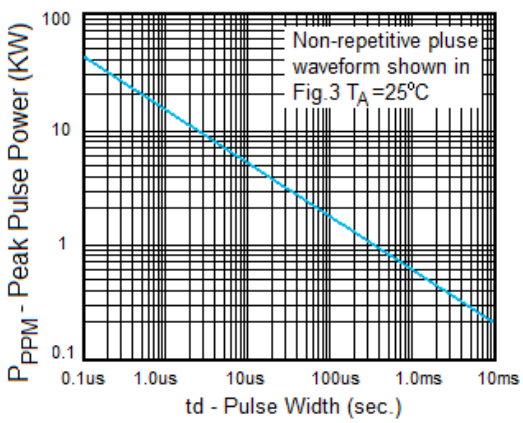


Fig. 1 Peak Pulse Power Rating

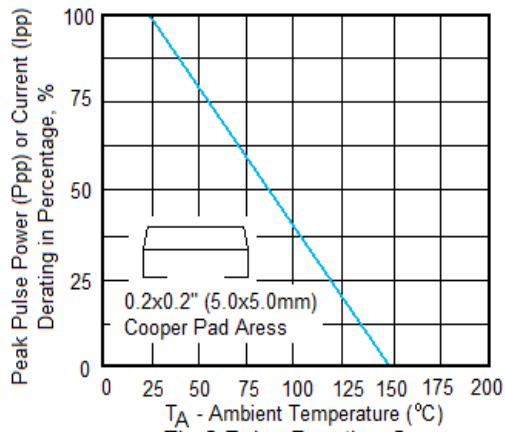


Fig.2 Pulse Derating Cure

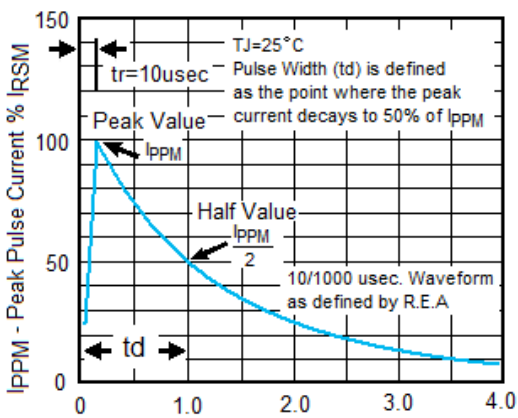


Fig.3 Pulse Waveform

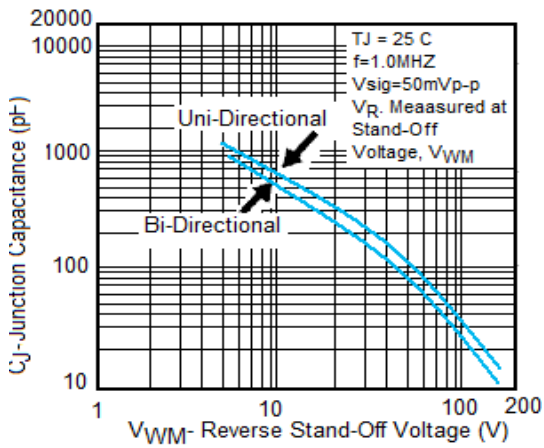


Fig. 4- Typical Junction Capacitance