

PXXXXSB SERIES

Power Transient Voltage Suppressor

Description:

thyristor surge protector devices are designed to help protect sensitive telecommunication equipment from the hazards caused by lightning, power contact, and power induction.



Feature:

- Bi-directional crowbar transient voltage protection
- High surge capability
- High off-state impedance, Low leakage current
- Short-circuit failure mode
- Central office switching equipment, Analog and digital linecards (xDSL, T1/E1, ISDN...).
- Customer Premises Equipment (CPE) such as phones, fax machines, modems, POS terminals, PBX systems and caller ID adjunct boxes.
- Primary protection modules including Main Distribution Frames (MDF), building entrance equipment and station protection modules.
- Access network equipment such as remote terminals, line repeaters, multiplexers, cross-connects, Salltech equipment, Network Interface Devices (NID).
- Data lines and security systems.
- CATV line amplifiers and power inserters.
- Sprinkler systems.
- Packaging : Tape and Reel per EIA-481
- RoHS compliant

Electrical Parametrs(T=25°C)

| Part Number | V _{DRM} | I _{DRM} | V _{BO} | I _{BO} | V _T | I _T | C _O | I _H | I _{PP} |
|-------------|------------------|------------------|-----------------|-----------------|----------------|----------------|----------------|----------------|-----------------|
| | Max. | Max. | Max. | Max. | Max. | Max. | Max | Min. | 10/1000μs |
| | V | μA | V | mA | V | A | pF | mA | A |
| P0060SB | 6 | 5 | 20 | 800 | 4 | 2.2 | 80 | 20 | 80 |
| P0080SB | 8 | 5 | 25 | 800 | 4 | 2.2 | 100 | 20 | 80 |
| P0300SB | 25 | 5 | 40 | 800 | 4 | 2.2 | 100 | 20 | 80 |
| P0640SB | 58 | 5 | 77 | 800 | 4 | 2.2 | 90 | 20 | 80 |
| P0720SB | 65 | 5 | 88 | 800 | 4 | 2.2 | 90 | 20 | 80 |
| P0900SB | 75 | 5 | 98 | 800 | 4 | 2.2 | 90 | 20 | 80 |
| P1100SB | 90 | 5 | 130 | 800 | 4 | 2.2 | 90 | 20 | 80 |
| P1200SB | 100 | 5 | 130 | 800 | 4 | 2.2 | 80 | 20 | 80 |
| P1300SB | 120 | 5 | 160 | 800 | 4 | 2.2 | 80 | 20 | 80 |
| P1400SB | 130 | 5 | 160 | 800 | 4 | 2.2 | 80 | 20 | 80 |
| P1500SB | 140 | 5 | 180 | 800 | 4 | 2.2 | 80 | 20 | 80 |
| P1800SB | 170 | 5 | 220 | 800 | 4 | 2.2 | 80 | 20 | 80 |
| P2000SB | 180 | 5 | 230 | 800 | 4 | 2.2 | 70 | 20 | 80 |
| P2300SB | 190 | 5 | 260 | 800 | 4 | 2.2 | 70 | 20 | 80 |
| P2400SB | 200 | 5 | 270 | 800 | 4 | 2.2 | 70 | 20 | 80 |
| P2600SB | 220 | 5 | 300 | 800 | 4 | 2.2 | 70 | 20 | 80 |
| P2800SB | 240 | 5 | 320 | 800 | 4 | 2.2 | 70 | 20 | 80 |
| P3100SB | 275 | 5 | 350 | 800 | 4 | 2.2 | 70 | 20 | 80 |
| P3500SB | 320 | 5 | 400 | 800 | 4 | 2.2 | 70 | 20 | 80 |

V_{DRM}: Stand-off voltage, is measured at I_{DRM}.

I_{DRM}: Leakage current at V_{DRM}.

V_{BO}: Breakover voltage, is measured at 100V/μs.

I_{BO}: Breakover current.

V_T: On-state voltage.

I_T: On-state current.

C_O: Off-state capacitance.

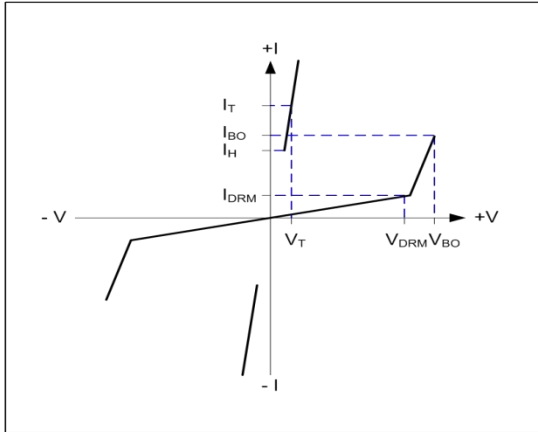
I_H: Holding current.

I_{PP}: Peak pulse current, is a repetitive surge rating and is guaranteed for the life of the product.

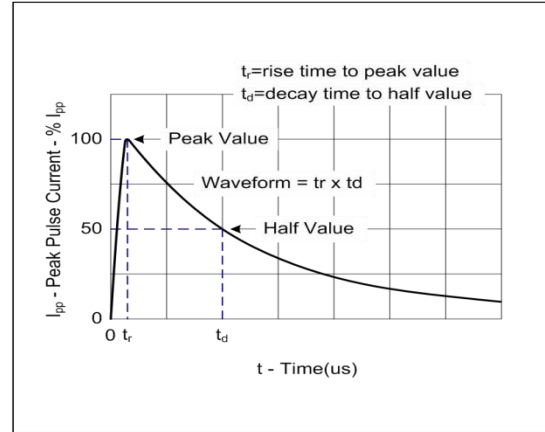
General Notes:

- All measurements are made at an ambient temperature of 25 °C. I_{pp} applies to -40 °C through +85 °C temperature range.
- Special voltage (V_{BO} and V_{DRM}) and holding current (I_H) requirements are available up on request. Off-state capacitance is measured at 1 MHz with a 2 V bias

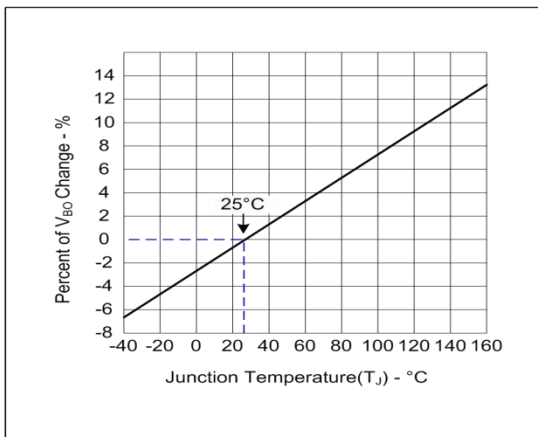
I-V Curve Characteristics:



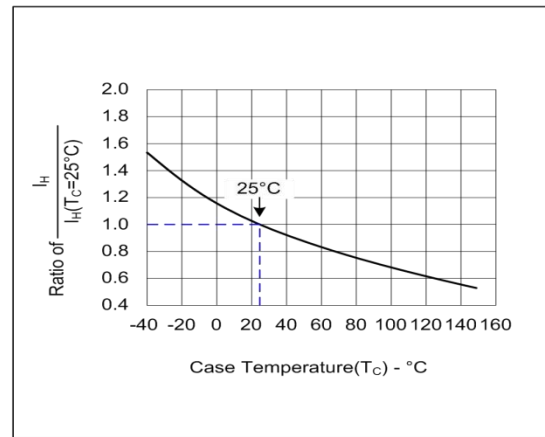
V - I Characteristics



$t_r \times t_d$ Pulse Waveform



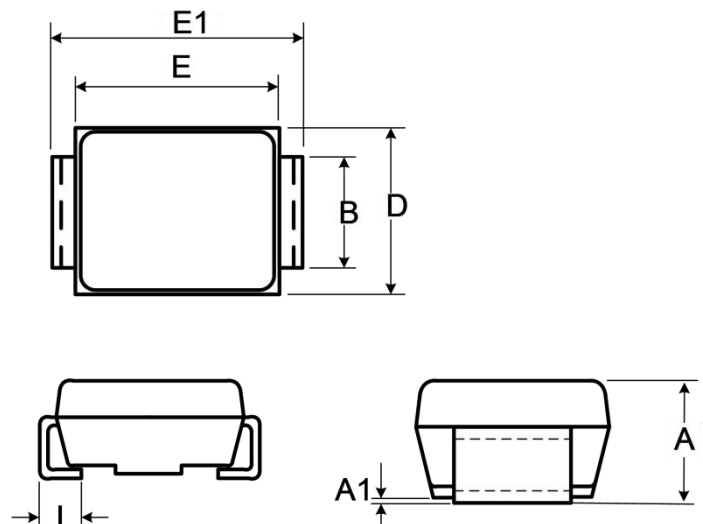
Normalized V_{BO} Change versus Junction Temperature



Normalized DC Holding Current versus Case Temperature

Product Dimensions

| Ref.(mm) | Millimeters | |
|----------|-------------|------|
| | Min. | Max. |
| D | 3.40 | 3.94 |
| B | 1.90 | 2.10 |
| E | 4.22 | 4.70 |
| E1 | 5.21 | 5.59 |
| A | 1.95 | 2.55 |
| A1 | 0 | 0.23 |
| L | 0.90 | 1.42 |

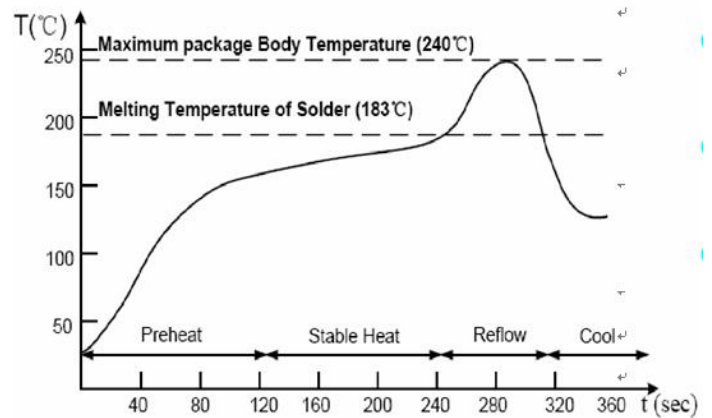


Thermal Resistances

| Symbol | Parameter | Value | Unit |
|--------|------------------------------|-------------|--------------------|
| T_s | Storage temperature range | -55 to +150 | $^{\circ}\text{C}$ |
| T_j | Maximum junction temperature | 150 | $^{\circ}\text{C}$ |

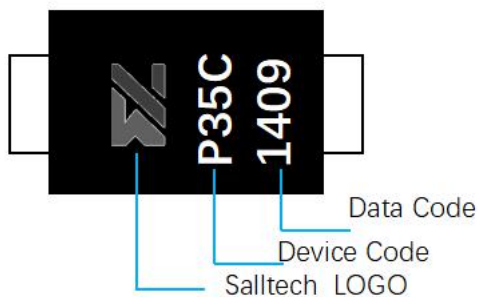
Solder Reflow Recommendations

- Recommended reflow methods: IR, vapor phase oven, hot air oven, wave solder.
- The device can be exposed to a maximum temperature of 265 $^{\circ}\text{C}$ for 10 seconds.
- Devices can be cleaned using standard industry methods and solvents.



Notes: If reflow temperatures exceed the recommended profile, devices may not meet the performance requirements.

Part Marking System



Part Numbering System

P XXXX S B
 (A) (B) (C) (D)

- (A) Salltech Semiconductor Surge Arrester
- (B) Series: 0060, 0080, 0300, 3500
- (C) Package: SMB
- (D) Rating Sure Voltage $V: 80\text{A}$ (10/1000 μs)

Packing Information

| Symbol | Spec | | |
|------------------|------------|-----------------|----------|
| W | 12±0.2 | | |
| E | 1.75±0.1 | | |
| F | 5.5±0.05 | | |
| D0 | 1.55±0.05 | | |
| D1 | 1.5±0.1 | | |
| P0 | 4.0±0.1 | | |
| P1 | 8.0±0.1 | | |
| P2 | 2.0±0.05 | | |
| T | 0.23±0.02 | | |
| A0 | 3.81±0.1 | | |
| B0 | 5.74±0.1 | | |
| K0 | 2.4±0.1 | | |
| T1 | 0.05 以上 | | |
| D5 | Ø330±2.0 | | 13" Reel |
| D6 | Ø13.5±0.5 | | |
| H | 2.5±1.0 | | |
| W2 | 16±2.0 | | |
| Quantity:3000PCS | | | |
| D2 | Ø178.0±2.0 | | |
| D3 | Ø50Min. | | |
| D4 | Ø13.0±0.5 | | |
| W1 | 16.0±2.0 | Quantity:500PCS | |

Contact Information

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