

Features

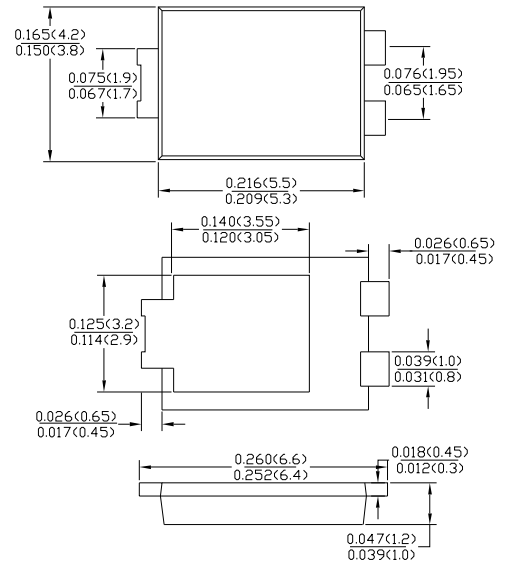
- Schottky Barrier Chip
- High Thermal Reliability
- Patented Super Barrier Rectifier Technology
- High Forward Surge Capability
- Ultra Low Power Loss, High Efficiency
- Excellent High Temperature Stability

Mechanical Data

- Case: TO-277 Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Weight: 0.093 grams (approx.)
- Mounting Position: Any
- Marking: Type Number
- Lead Free: For RoHS/Lead Free Version



TO-277



Dimensions inches and (millimeters)

Maximum Ratings and Electrical Characteristics $T_A = 25^\circ\text{C}$ unless otherwise specified

Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

| Characteristic | Symbol | SB1545L | Unit |
|--|------------------------------------|-------------|--------------------|
| Peak Repetitive Reverse Voltage | V_{RRM} | 45 | V |
| Working Peak Reverse Voltage | V_{RWM} | | |
| DC Blocking Voltage | V_R | | |
| RMS Reverse Voltage | $V_R(RMS)$ | 28 | V |
| Average Rectified Output Current (Note 1) @ $T_L = 90^\circ\text{C}$ | I_O | 15.0 | A |
| Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method) @ $T_L = 75^\circ\text{C}$ | I_{FSM} | 275 | A |
| Forward Voltage Drop @ $I_F = 15A, T_J = 25^\circ\text{C}$ | V_{FM} | 0.55 | V |
| Peak Reverse Current @ $V_F = 45V, T_J = 25^\circ\text{C}$ | I_{RM} | 0.3 | mA |
| At Rated DC Blocking Voltage @ $V_F = 45V, T_J = 100^\circ\text{C}$ | | 15 | |
| Typical Thermal Resistance Junction to Ambient | $R_{\theta JA}$ $R_{\theta JL}$ | 80 15 | $^\circ\text{C/W}$ |
| Operating Temperature Range | T_J | -55 to +150 | $^\circ\text{C}$ |
| Storage Temperature Range | T_{STG} | -55 to +150 | $^\circ\text{C}$ |

Note: 1. Valid provided that leads are kept at ambient temperature at a distance of 9.5mm from the case.

2. FR-4 PCB, 2oz. Copper, minimum recommended pad layout .

3. Polyimide PCB, 2oz. Copper. Cathode pad dimensions 18.8mm x 14.4mm. Anode pad dimensions 5.6mm x 14.4mm.



Fig.1 - Forward Current Derating Curve

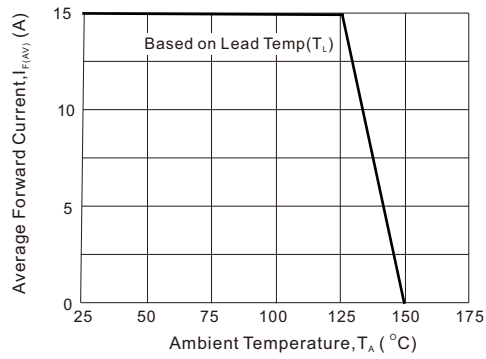


Fig2 : Instantaneous Forward Voltage

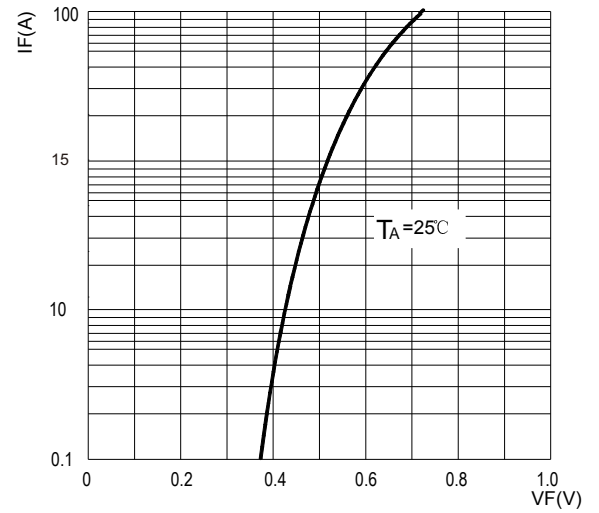


Fig3: Surge Forward Current Capability

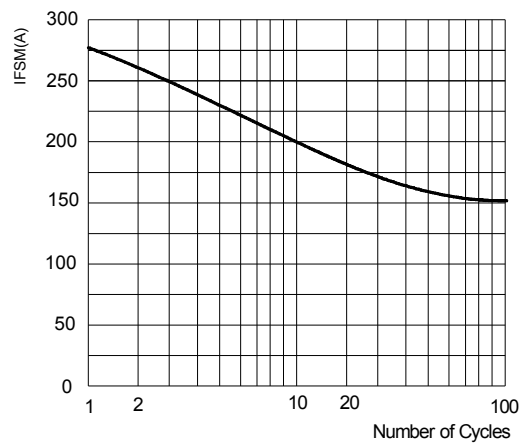


Fig4: Typical Reverse Characteristics

