

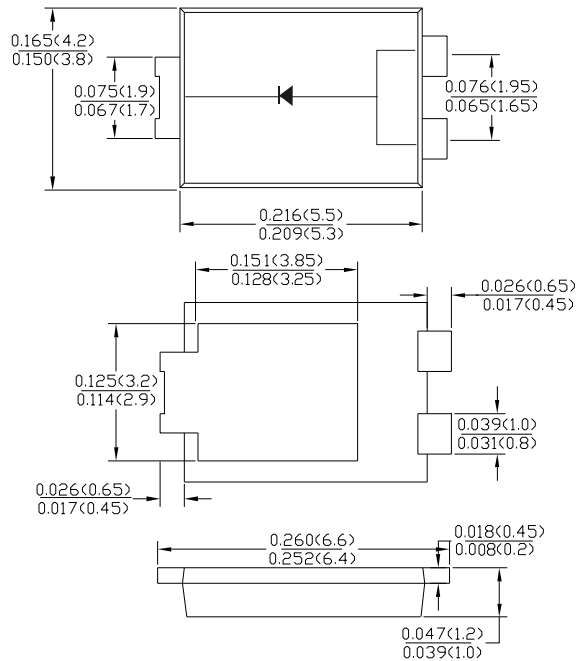
### Features

- Schottky Barrier Chip
- High Thermal Reliability
- Patented Super Barrier Rectifier Technology
- High Forward Surge Capability
- Ultra Fow Power Loss,High Efficiency
- Excellent High Temperature Stability
- Plastic material-UL flammability 94V-0

### Mechanical Data

- Case: TO-277B, molded plastic
- Terminals:Plated Leads Solderable per MIL-STD-202,Method 208
- Polarity:Cathode Band
- Mounting Position:Any
- Marking:Type Number
- Lead Free:For RoHS/Lead Free Version

### TO-277B



dimensions in inches and (millimeters)

### Maximum Ratings and Electrical Characteristics @T<sub>A</sub> =25 °C unless otherwise specified

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

| Parameter                                                                                                                                                                                                  | Symbol                               | SB1545L                              |                                | Unit             |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|--------------------------------------|--------------------------------|------------------|
| Peak Repetitive Reverse Voltage                                                                                                                                                                            | V <sub>RRM</sub>                     | 45                                   |                                | V                |
| Working Peak Reverse Voltage                                                                                                                                                                               | V <sub>RWM</sub>                     |                                      |                                |                  |
| DC blocking voltage                                                                                                                                                                                        | V <sub>DC</sub>                      |                                      |                                |                  |
| RMS Rectified Voltage                                                                                                                                                                                      | V <sub>R(RMS)</sub>                  | 32                                   |                                | V                |
| Average Rectified Output Current (Note1)                                                                                                                                                                   | I <sub>F(AV)</sub>                   | 15.0                                 |                                | A                |
| Non-Repetitive Peak Forward Surge8.3ms<br>Single Half Sine-Wave Superimposed on rated<br>load(JEDEC Method) (Note2)                                                                                        | I <sub>FSM</sub>                     | 250                                  |                                | A                |
| I <sup>2</sup> t Rating for Fusing (t < 8.3ms)                                                                                                                                                             | I <sup>2</sup> t                     | 259.375                              |                                | A <sup>2</sup> s |
| Forward Voltage Drop<br>T <sub>A</sub> =25 °C @I <sub>F</sub> =1A<br>T <sub>A</sub> =25 °C @I <sub>F</sub> =5A<br>T <sub>A</sub> =25 °C @I <sub>F</sub> =10A<br>T <sub>A</sub> =25 °C @I <sub>F</sub> =15A | V <sub>FM</sub>                      | Typ.<br>0.29<br>0.37<br>0.42<br>0.47 | Max.<br>-<br>-<br>0.47<br>0.52 | V                |
| Peak Reverse Curent T <sub>A</sub> =25°C<br>At Rated DC Blocking Voltage T <sub>A</sub> =100°C                                                                                                             | I <sub>R</sub>                       | 0.3<br>15                            |                                | mA               |
| Typical Thermal Resistance<br>Junctionto Ambient                                                                                                                                                           | R <sub>θJA</sub><br>R <sub>θJL</sub> | 110<br>3.5                           |                                | °C/W             |
| Operating junction temperature range                                                                                                                                                                       | T <sub>J</sub>                       | -55 to +150                          |                                | °C               |
| storage temperature range                                                                                                                                                                                  | T <sub>STG</sub>                     | -55 to +150                          |                                | °C               |

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

2.Fr-4pcb.2oz.Copper,minimum recommend pad layout .18.8mm×14.4.Anode pad dimensions 5.6mm×14.4mm.

Fig.1 - Forward Current Derating Curve

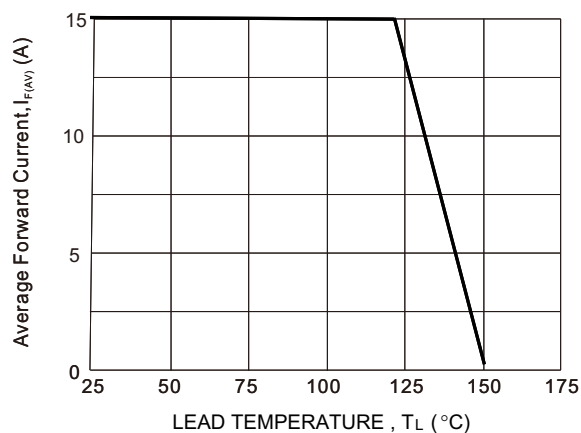


Fig. 2 Typical Forward Characteristics (per leg)

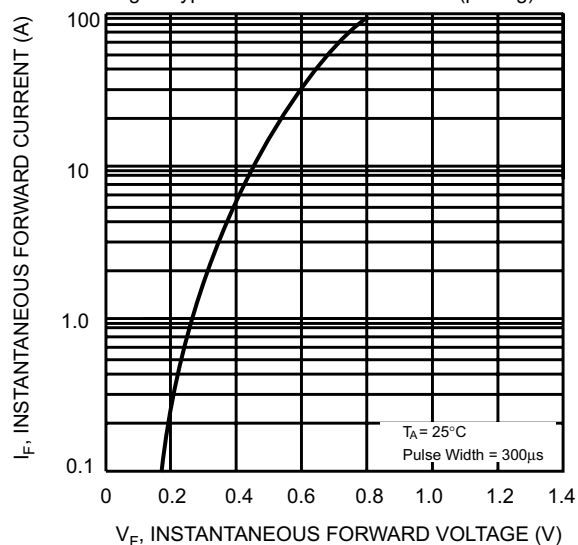


Fig. 3 Maximum Peak Forward Surge Current (per leg)

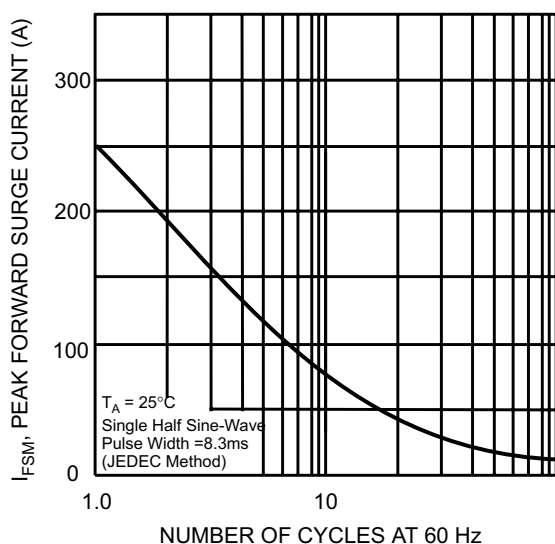


Fig4: Typical Reverse Characteristics

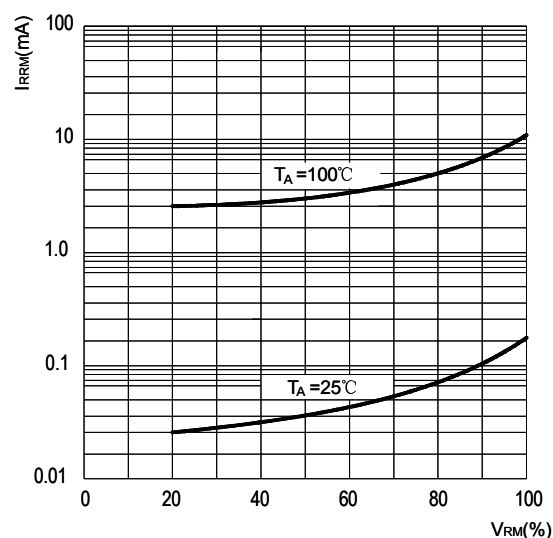


FIG.5 MOUNTING PAD LAYOUT

