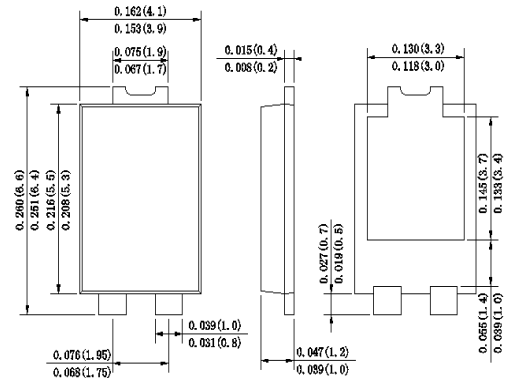





SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER
Features

- ◆ 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

TO-277
ROHS
 COMPLIANT

 LEFT PIN  RIGHT PIN  BOTTOMSIDE HEAT SINK 

Dimensions in inches and (millimeters)

Mechanical Data
Case : JEDEC TO-277 Molded plastic body

Terminals :Plated Leads Solderable per MIL-STD-202,Method 208

Polarity : Polarity symbol marking on body

Mounting Position : Any

Weight : 0.003 ounce, 0.092 grams

Maximum Ratings And Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

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

| Parameter | SYMBOLS | SB 1045L | SB 1050L | SB 1060L | SB 1080L | SB 10100L | SB 10150L | SB 10200L | UNIT |
|--|------------------------------------|-------------|----------|----------|----------|-----------|-----------|-----------|---------------|
| | | SB 1045L | SB 1050L | SB 1060L | SB 1080L | SB 10100L | SB 10150L | SB 10200L | |
| Marking Code | | SB 1045L | SB 1050L | SB 1060L | SB 1080L | SB 10100L | SB 10150L | SB 10200L | |
| Maximum repetitive peak reverse voltage | V_{RRM} | 45 | 50 | 60 | 80 | 100 | 150 | 200 | V |
| Maximum working peak reverse voltage | V_{RWM} | | | | | | | | |
| Maximum DC blocking voltage | V_{DC} | | | | | | | | |
| RMS Reverse voltage | V_{RMS} | 32 | 35 | 42 | 56 | 70 | 105 | 140 | V |
| Average Rectified Output Current | $I_{(O)}$ | 10 | | | | | | | A |
| Non-Repetitive Peak Forward Surge 8.3ms Single Half Sine-Wave Superimposed on rated load(JEDEC Method) | I_{FSM} | 150 | | | | | | | A |
| Forward Voltage Drop at 10.0A $T_A=25^{\circ}C$ | V_F | 0.53 | 0.6 | 0.75 | | 0.9 | 0.9 | | V |
| Peak reverse curent at rated DC blocking voltage $T_A=25^{\circ}C$ $T_A=125^{\circ}C$ | I_R | 0.3 | | | | | | | mA |
| | | 15 | | | | | | | |
| Typical thermal resistance Junctionto Ambient | $R_{\theta JA}$ $R_{\theta JL}$ | 80 | | | | | | | $^{\circ}C/W$ |
| | | 15 | | | | | | | |
| Operating junction and storage temperature range | T_J, T_{STG} | -55 to +150 | | | | | | | $^{\circ}C$ |

- Note:**
- 1.Reverse recovery condition $I_F=0.5A, I_R=1.0A, I_{rr}=0.25A$.
 - 2.P.C.B. mounted with 2.0x2.0"(5.0x5.0cm) copper pad areas.
 - 3.Measured at 1MHz and applied reverse voltage of 4.0V D.C.
 - 4.The typical data above is for referenceonly.

Ratings And Characteristic Curves

Fig.1 - Forward Current Derating Curve

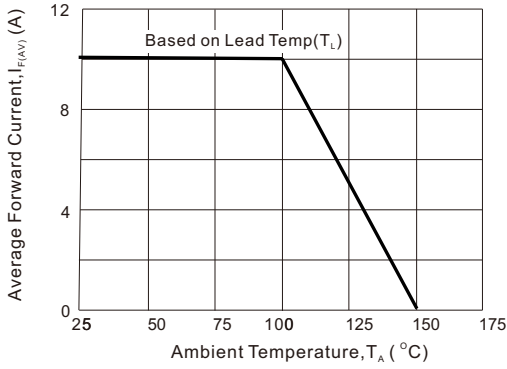


Fig2 : Instantaneous Forward Voltage

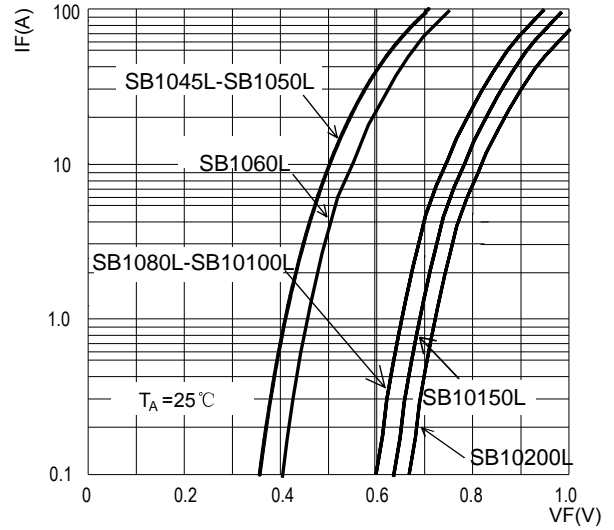


Fig3: Surge Forward Current Capability

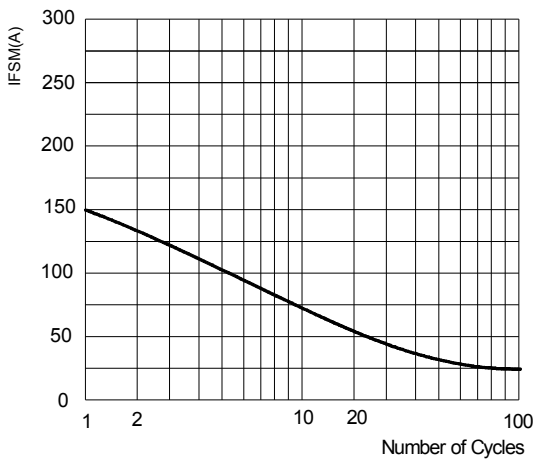
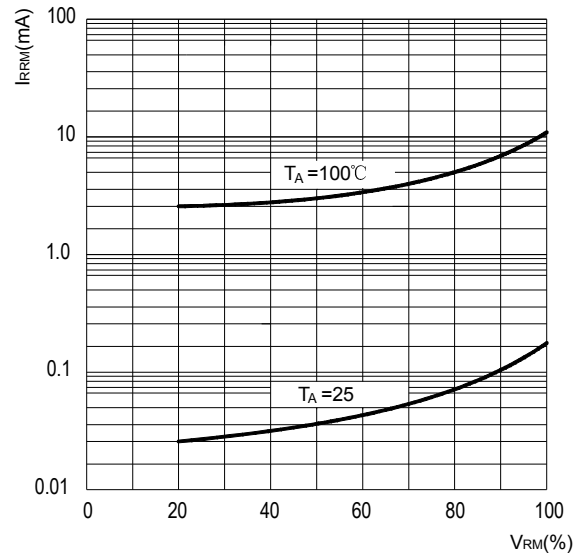
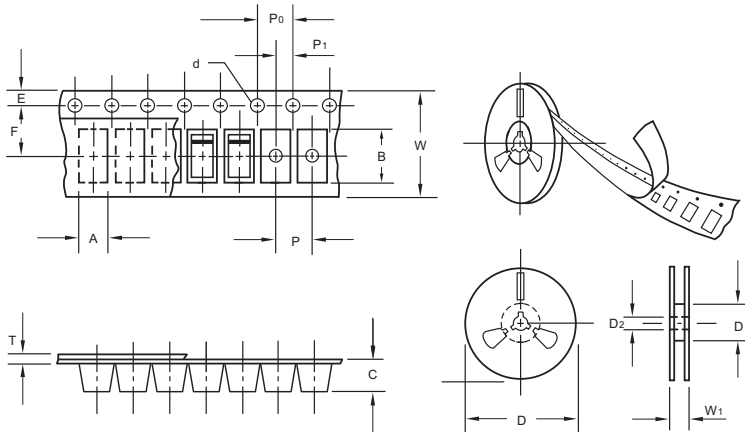


Fig4: Typical Reverse Characteristics



The curve above is for reference only.

Packing information



unit:mm

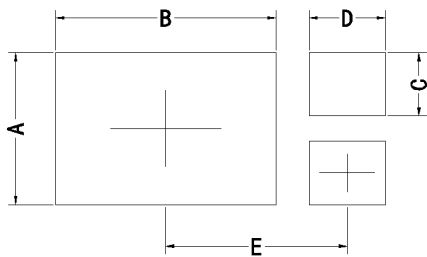
| Item | Symbol | Tolerance | TO-277 |
|---------------------------|----------------|-----------|--------|
| Carrier width | A | 0.1 | 4.45 |
| Carrier length | B | 0.1 | 7.0 |
| Carrier depth | C | 0.1 | 1.60 |
| Sprocket hole | d | 0.05 | 1.55 |
| 11" Reel outside diameter | D | 2.0 | 280.00 |
| 11" Reel inner diameter | D ₁ | min | 50.0 |
| Feed hole diameter | D ₂ | 0.5 | 13.00 |
| Sprocket hole position | E | 0.1 | 1.75 |
| Punch hole position | F | 0.1 | 7.50 |
| Punch hole pitch | P | 0.1 | 8.00 |
| Sprocket hole pitch | P ₀ | 0.1 | 4.00 |
| Embossment center | P ₁ | 0.1 | 2.00 |
| Overall tape thickness | T | 0.1 | 0.25 |
| Tape width | W | 0.3 | 12.00 |
| Reel width | W ₁ | 1.0 | 12.30 |

Note: Devices are packed in accordance with EIA standard RS-481-A and specifications listed above.

Reel packing

| PACKAGE | REEL SIZE | REEL (pcs) | COMPONENT SPACING (m/m) | BOX (pcs) | INNER BOX (m/m) | REEL DIA. (m/m) | CARTON SIZE (m/m) | CARTON (pcs) | APPROX. GROSS WEIGHT (kg) |
|---------|-----------|------------|-------------------------|-----------|-----------------|-----------------|-------------------|--------------|---------------------------|
| TO-277 | 11" | 3,000 | 5.0 | 6,000 | 340*340*43 | 280 | 380*380*380 | 48,000 | 9.0 |

Suggested Pad Layout



| Symbol | Unit (mm) | Unit (inch) |
|--------|-----------|-------------|
| A | 3.60 | 0.142 |
| B | 5.35 | 0.211 |
| C | 1.50 | 0.059 |
| D | 1.85 | 0.073 |
| E | 4.30 | 0.169 |