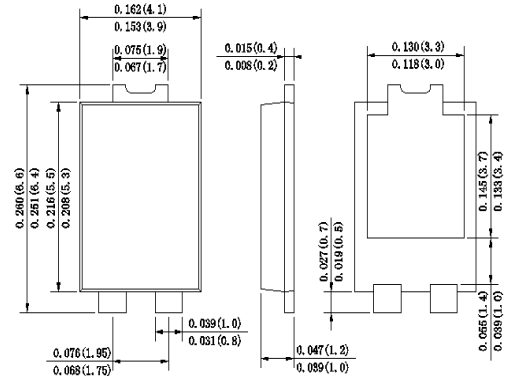


## SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

### Features

- ◆ The plastic package carries Underwriters Laboratory
- ◆ Flammability Classification 94V-0
- ◆ For surface mounted applications
- ◆ Built-in strain relief,ideal for automated placement
- ◆ Low forward voltage drop
- ◆ High forward surge current capability
- ◆ High temperature soldering guaranteed  
250 C/10 seconds at terminals

**TO-277**


LEFT PIN 0  
RIGHT PIN 0  
BOTTOMSIDE  
HEAT SINK

Dimensions in inches and (millimeters)

### Mechanical Data

Case : JEDEC TO-277 Molded plastic body  
Terminals :Solder plated, solderable per MIL-STD-750,Method 2026  
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                                                                                                   | SYMBOL    | SB1060L        | UNIT |
|-------------------------------------------------------------------------------------------------------------|-----------|----------------|------|
| Marking Code                                                                                                |           | MDD<br>SB1060L |      |
| Maximum repetitive peak reverse voltage                                                                     | $V_{RRM}$ | 60             | V    |
| Maximum DC blocking voltage                                                                                 | $V_{DC}$  |                |      |
| RMS Reverse voltage                                                                                         | $V_{RMS}$ | 42             | V    |
| Average Rectified Output Current                                                                            | $I_{(O)}$ | 10             | A    |
| Non-Repetitive Peak Forward Surge8.3ms<br>Single Half Sine-Wave Superimposed on<br>rated load(JEDEC Method) | $I_{FSM}$ | 175            | A    |

Electrical Characteristics Ta=25°C unless otherwise noted

| Parameter                                           | TestConditions     | Symbol          | Value       |      | Unit |
|-----------------------------------------------------|--------------------|-----------------|-------------|------|------|
|                                                     |                    |                 | Typ         | Max  |      |
| Forward Voltage Drop                                | at 10A             | $V_F$           | -           | 0.70 | V    |
| Peak reverse curent at rated<br>DC blocking voltage | $T_A=25^{\circ}C$  | $I_R$           | -           | 0.5  | mA   |
|                                                     | $T_A=125^{\circ}C$ |                 | -           | 50   | mA   |
| Typical thermal resistance                          |                    | $R_{\theta JA}$ | 60.0        |      | °C/W |
| Operating junction temperature range                |                    | $T_J$           | -55 to +150 |      | °C   |
| Storage temperature range                           |                    | $T_{STG}$       | -55 to +150 |      | °C   |

**Note:**1.The typical data above is for referenceonly.

## Ratings And Characteristic Curves

FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT

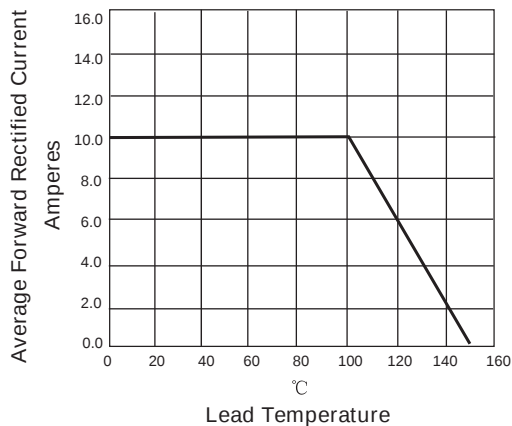


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

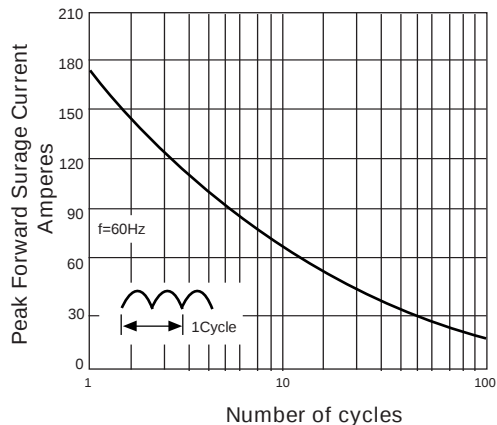


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS

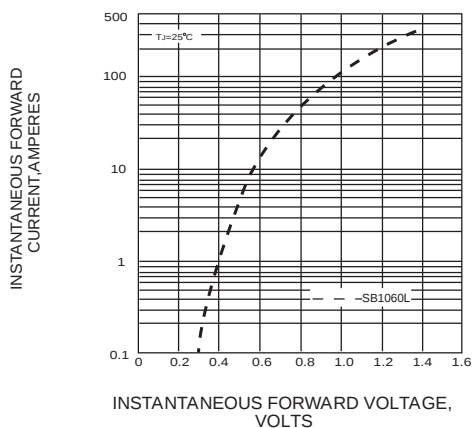
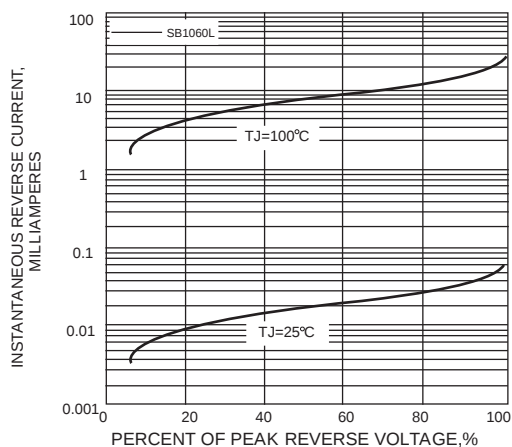
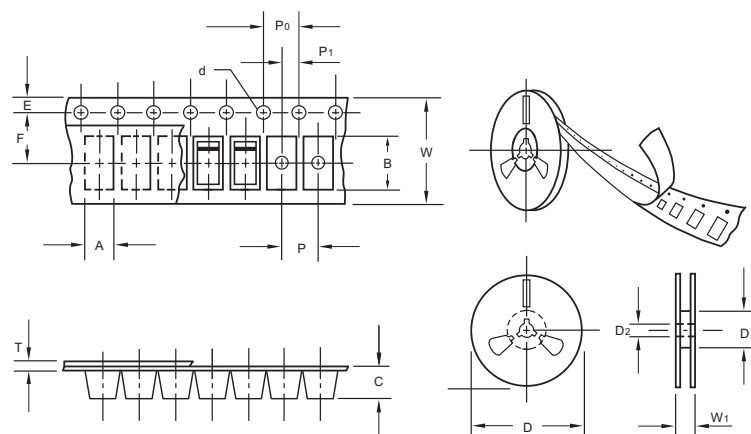


FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS



The curve above is for reference only.

## Packing information



unit:mm

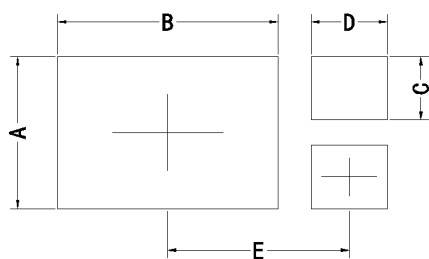
| Item                      | Symbol | Tolerance | TO-277 |
|---------------------------|--------|-----------|--------|
| Carrier width             | A      | 0.1       | 4.45   |
| Carrier length            | B      | 0.1       | 7.0    |
| Carrier depth             | C      | 0.1       | 1.60   |
| Sprocket hole             | d      | 0.05      | 1.55   |
| 13" Reel outside diameter | D      | 2.0       | 330.00 |
| 13" Reel inner diameter   | D1     | min       | 50.0   |
| Feed hole diameter        | D2     | 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       | P0     | 0.1       | 4.00   |
| Embossment center         | P1     | 0.1       | 2.00   |
| Overall tape thickness    | T      | 0.1       | 0.25   |
| Tape width                | W      | 0.3       | 12.00  |
| Reel width                | W1     | 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  | 13"       | 5,000      | 4.0                     | 10,000    | 210*208*203     | 330             | 430*430*235       | 80,000       | 13.0                      |

## 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       |