

## 15A 100V Surface Mount Schottky Barrier Diode

### Features

- Excellent high temperature stability
- Low forward voltage
- Low power loss/ high efficiency
- Ideal for automated placement
- High forward surge capability
- Compliant with RoHS standards, halogen-free

### Mechanical Data

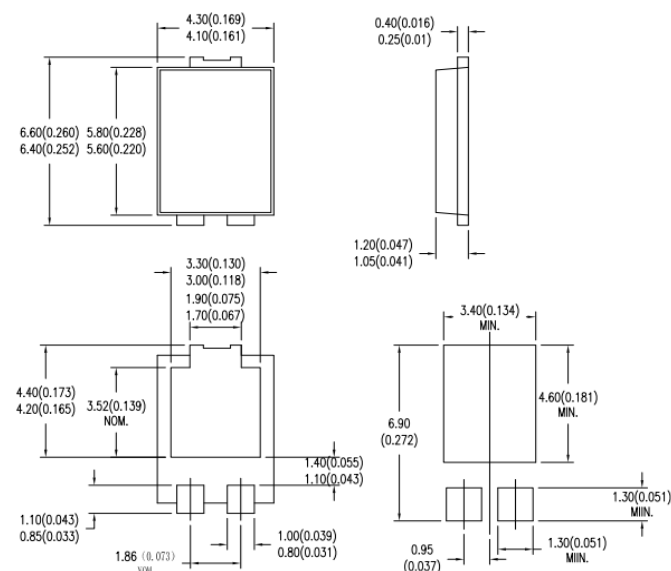
- Case: TO-277B
- Polarity: Indicated by cathode band
- Epoxy: UL 94V-0 rate flame retardant
- Mounting Position : Any

Cathode  
& Heatsink



Anode 1  
Anode 2

TO-277B



### Maximum Ratings and Electrical Characteristics ( $T_A=25^\circ\text{C}$ unless otherwise noted)

| Parameter                                                                                     |                    |                          | Symbol          | SB15100      | Unit               |
|-----------------------------------------------------------------------------------------------|--------------------|--------------------------|-----------------|--------------|--------------------|
| Maximum repetitive peak reverse voltage                                                       |                    |                          | $V_{RRM}$       | 100          | V                  |
| Maximum average forward rectified current                                                     |                    |                          | $I_{F(AV)}$     | 15           | A                  |
| Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load per diode |                    |                          | $I_{FSM}$       | 250          | A                  |
| Maximum instantaneous forward voltage per diode (Note 1)                                      | $I_F = 15\text{A}$ | $T_J = 25^\circ\text{C}$ | $V_F$           | 0.82         | V                  |
| Maximum instantaneous reverse current per diode at rated reverse voltage                      |                    | $T_J = 25^\circ\text{C}$ | $I_R$           | 5            | $\mu\text{A}$      |
| Typical thermal resistance                                                                    |                    |                          | $R_{\theta JL}$ | 11           | $^\circ\text{C/W}$ |
| Operating temperature range                                                                   |                    |                          | $T_J$           | - 55 to +175 | $^\circ\text{C}$   |
| Storage temperature range                                                                     |                    |                          | $T_{STG}$       | - 55 to +175 | $^\circ\text{C}$   |

**Note:**

1. Pulse Test with Pulse Width=300 $\mu\text{s}$ , 1% Duty Cycle



Ratings and Characteristic Curves ( $T_A=25^{\circ}\text{C}$  unless otherwise noted)

FIG.1 FORWARD CURRENT DERATING CURVE

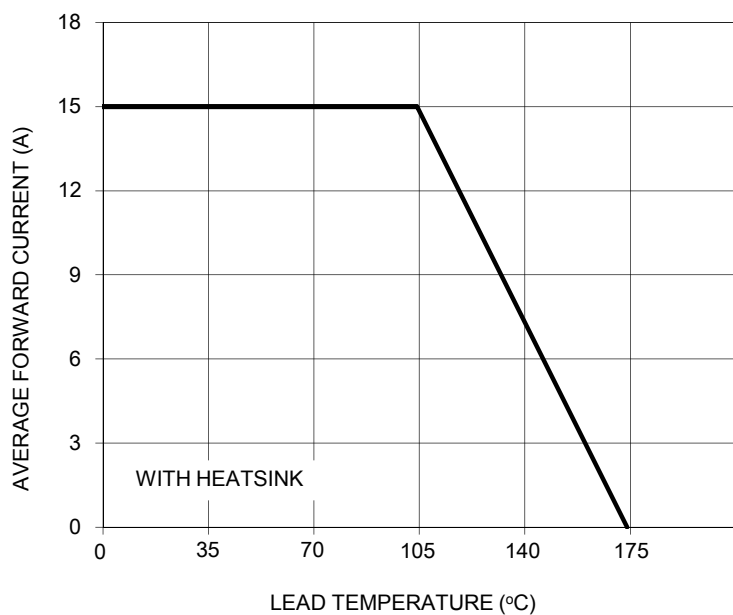


FIG. 2 TYPICAL FORWARD CHARACTERISTICS

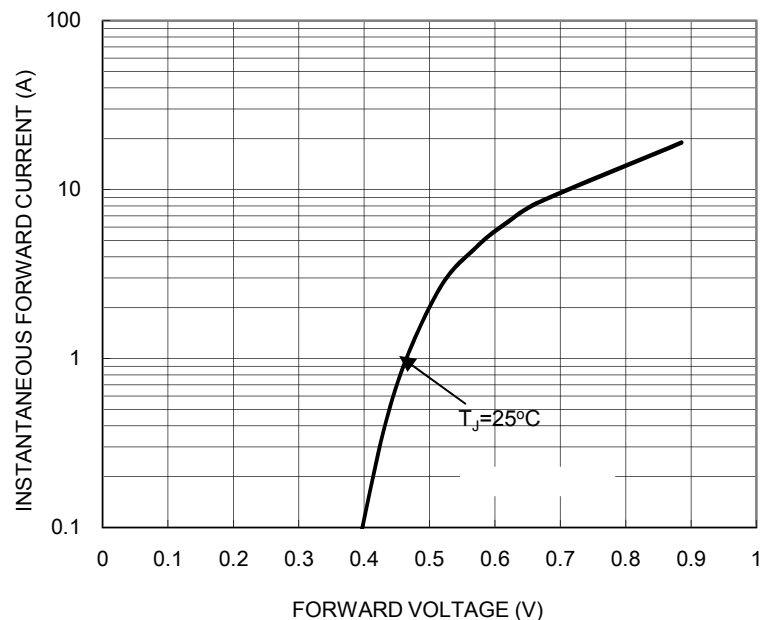


FIG. 3 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

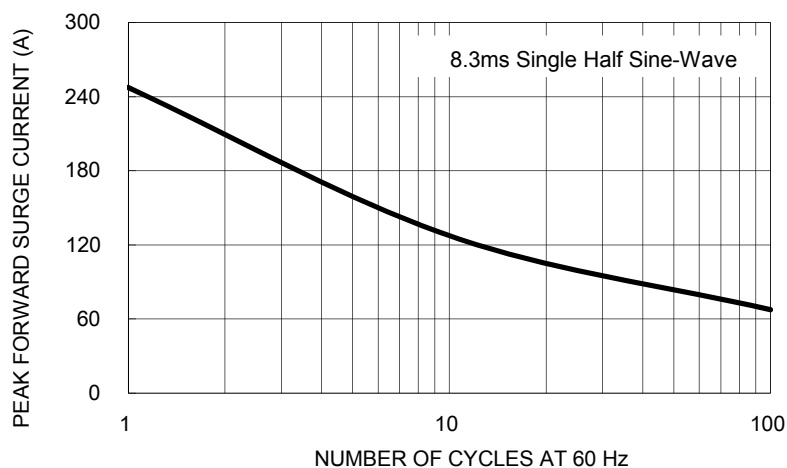


FIG. 4 TYPICAL REVERSE CHARACTERISTICS

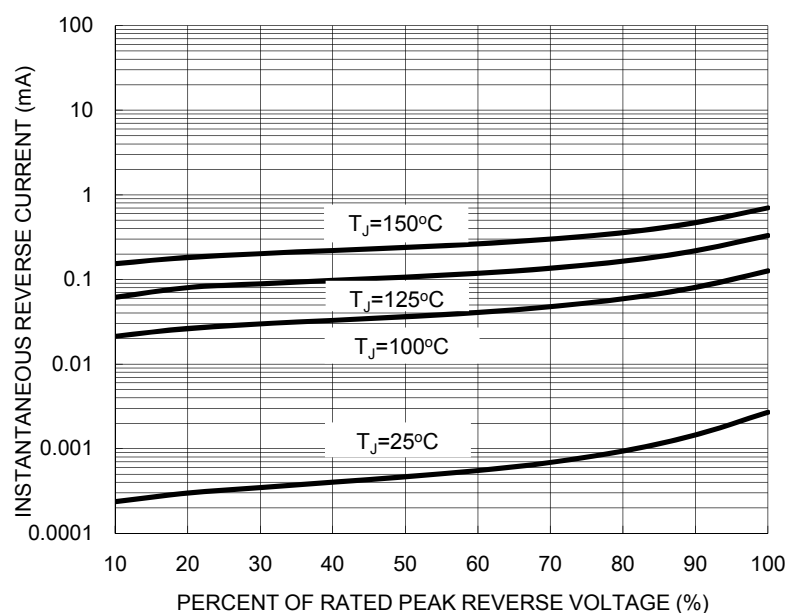


FIG. 5 TYPICAL JUNCTION CAPACITANCE

