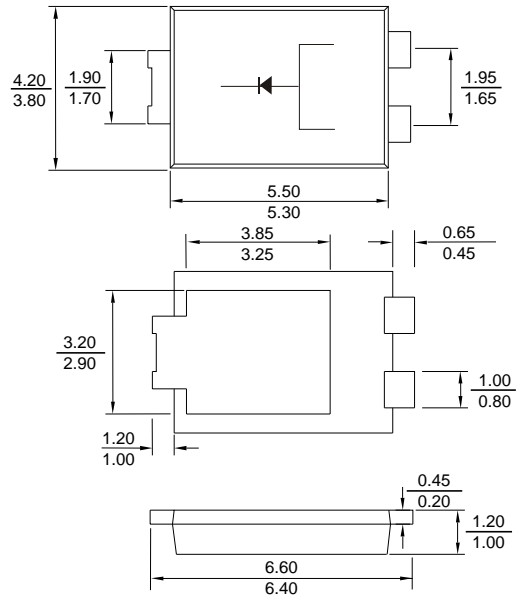


#### Features

- Schottky Barrier Chip
- Bypass Diodes for Solar Panels
- High Junction Temperature
- High Thermal Reliability
- Patented Super Barrier Rectifier Technology
- High Forward Surge Capability
- Ultra Low Power Loss, High Efficiency
- Excellent High Temperature Stability



#### TO-277B



Dimensions in millimeters

#### Mechanical Data

- Case: TO-277B Molded Plastic "Green" Molding Compound
- 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

#### 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	SB08T80L	SB08T100L	SB08T120L	SB08T150L	SB08T200L	Unit	
Peak Repetitive Reverse Voltage	$V_{RRM}$	80	100	120	150	200	V	
Working Peak Reverse Voltage	$V_{RWM}$							
DC Blocking Voltage	$V_R$							
RMS Reverse Voltage	$V_{R(RMS)}$	56	70	84	105	140	V	
Average Rectified Output Current @ $T_L = 100^\circ\text{C}$ (Note 1)	$I_o$	8.0						A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	150						A
$I^2t$ Rating for Fusing ( $t < 8.3\text{ms}$ )	$I^2t$	93.4						$\text{A}^2\text{s}$
Forward Voltage Drop $T_A = 25^\circ\text{C}$ @ $I_F = 1.0\text{A}$ $T_A = 25^\circ\text{C}$ @ $I_F = 3.0\text{A}$ $T_A = 25^\circ\text{C}$ @ $I_F = 8.0\text{A}$	$V_{FM}$	Typ. 0.47 Max. -	Typ. 0.47 Max. -	Typ. 0.47 Max. -	0.85	0.85	0.85	V
Peak Reverse Current @ $T_A = 25^\circ\text{C}$ At Rated DC Blocking Voltage @ $T_A = 100^\circ\text{C}$	$I_{RM}$	0.3 15						mA
Typical Thermal Resistance (Note 1)	$R_{\theta JA}$	80						$^\circ\text{C}/\text{W}$
Operating and Storage Temperature Range	$T_j, T_{STG}$	-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

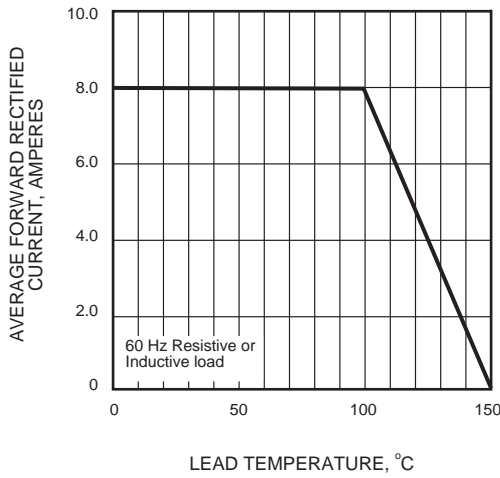


FIG.2 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

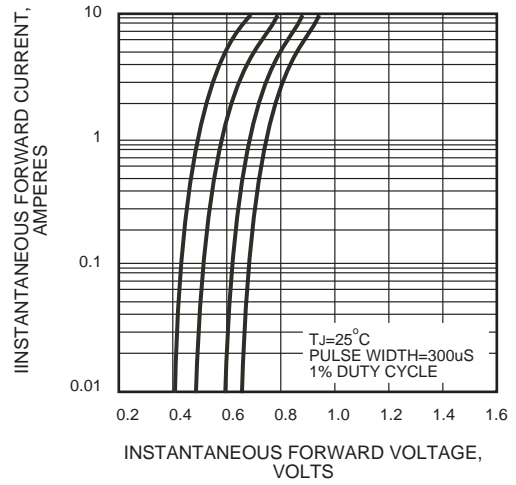


FIG.3 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

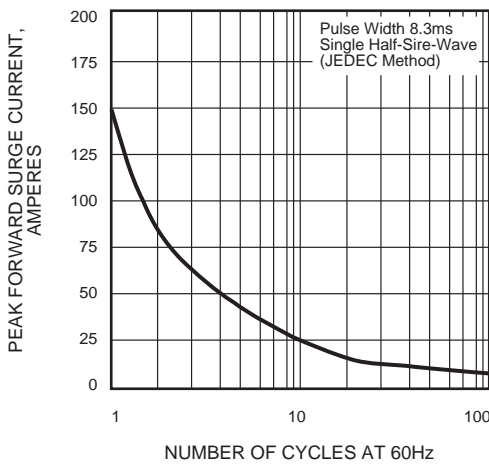


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

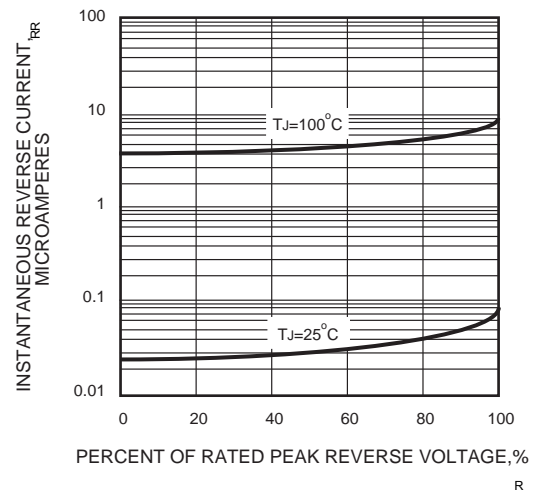


FIG.5 - TYPICAL JUNCTION CAPACITANCE

