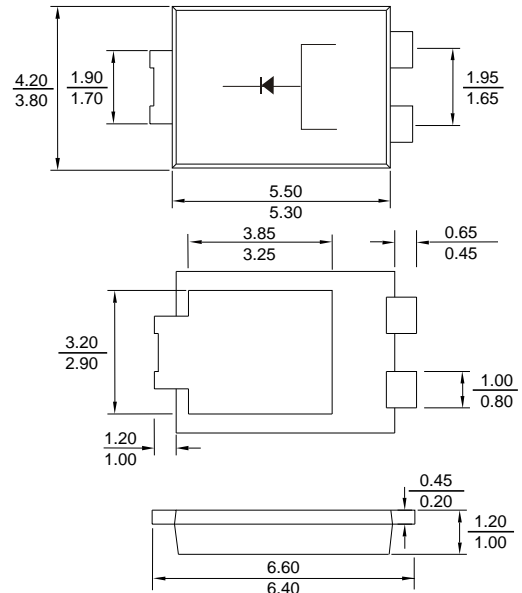


Features

- 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.

Characteristic	Symbol	SB1545L	SB1550L	SB1560L	SB1580L	SB15100L	SB15150L	SB15200L	Unit
Peak Repetitive Reverse Voltage	V_{RRM}								
Working Peak Reverse Voltage	V_{RWM}	45	50	60	80	100	150	200	V
DC Blocking Voltage	V_R								
RMS Reverse Voltage	$V_{R(RMS)}$	31.5	35	42	56	70	105	140	V
Average Rectified Output Current @ $T_L = 100^\circ\text{C}$ (Note 1)	I_O	15							A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	200							A
I^2t Rating for Fusing ($t < 8.3\text{ms}$)	I^2t	166							A^2s
Forward Voltage Drop $T_A = 25^\circ\text{C}$ @ $I_F = 15\text{A}$	V_{FM}	0.55			0.75		0.90		V
Peak Reverse Current @ $T_A = 25^\circ\text{C}$	I_{RM}	0.3							mA
At Rated DC Blocking Voltage @ $T_A = 100^\circ\text{C}$		15							
Typical Thermal Resistance (Note 1)	$R_{\theta JA}$	110							$^\circ\text{C/W}$
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

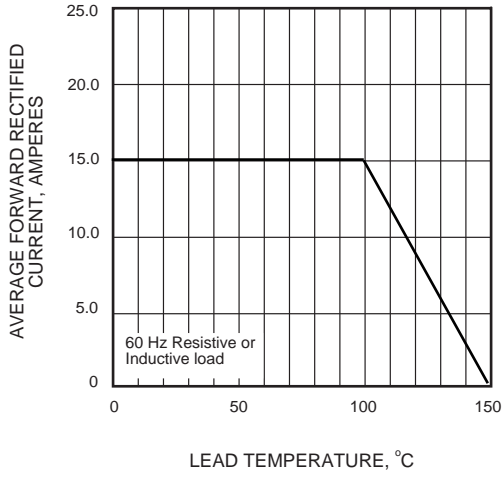


FIG.2 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

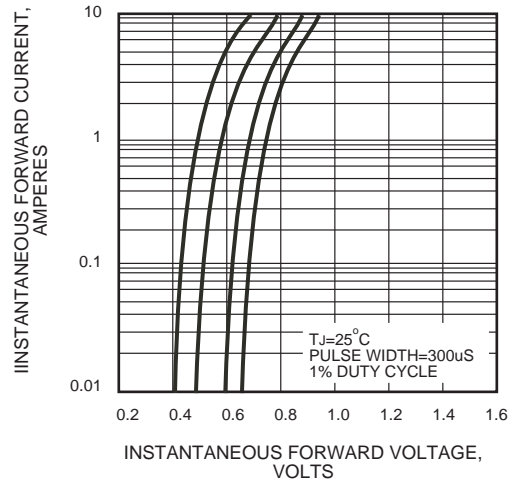


FIG.3 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

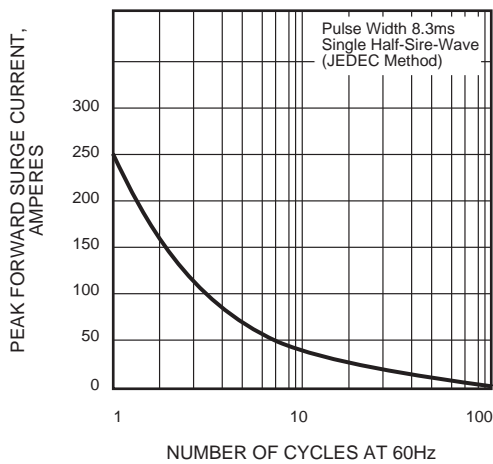


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

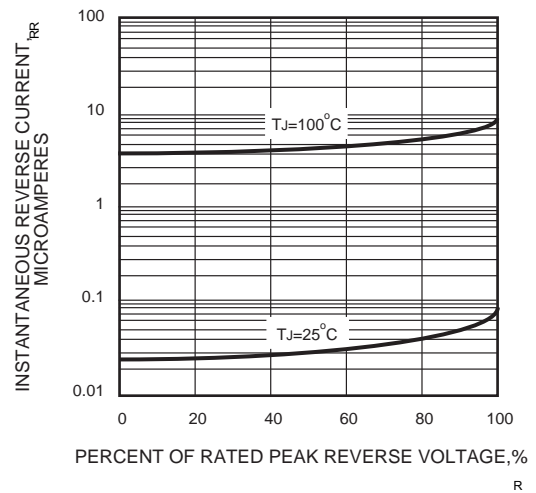


FIG.5 - TYPICAL JUNCTION CAPACITANCE

