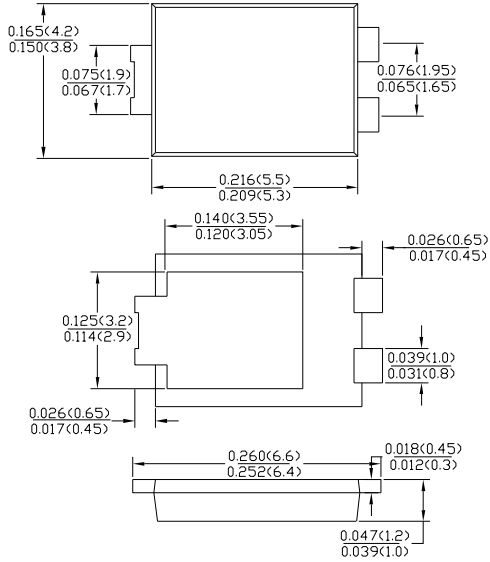


### T0-277



Dimensions in inches and millimeters

### Features

- Bypass Diodes for Solar Panels
- ! Maximum Junction Temperature 200°C
- High Thermal Reliability
- Patented Super Barrier Rectifier Technology
- High Forward Surge Capability
- Ultra Low Power Loss, High Efficiency
- Excellent High Temperature Stability

### Mechanical Data

- ! Case: T0-277 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<sub>A</sub>=25°C unless otherwise specified

Single Phase, half wave, 60Hz, resistive or inductive load.  
For capacitive load, derate current by 20%.

Characteristic	Symbol	SB1045L	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V <sub>RRM</sub> V <sub>RWM</sub> V <sub>R</sub>	45	V
RMS Reverse Voltage	V <sub>R(RMS)</sub>	32	V
Average Rectified Output Current (Note 1)	I <sub>O</sub>	10.0	A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>	150	A
Forward Voltage Drop @I <sub>F</sub> = 10A, T <sub>j</sub> = 25°C	V <sub>FM</sub>	0.4	V
Peak Reverse Current At Rated DC Blocking Voltage @V <sub>F</sub> = 45V, T <sub>j</sub> = 25°C @V <sub>F</sub> = 45V, T <sub>j</sub> = 100°C	I <sub>RM</sub>	0.3 15	mA
Typical Thermal Resistance Junction to Ambient (Note 2) (Note 3)	R <sub>θJA</sub>	73 31	°C/W
Operating Temperature Range @V <sub>R</sub> ≤ 80% V <sub>RRM</sub> DC Forward Mode	T <sub>j</sub>	-55 to +150	°C
Storage Temperature Range	T <sub>STG</sub>	-55 to +150	°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.

# 10.0A SCHOTTKY BARRIER RECTIFIER SB1045L

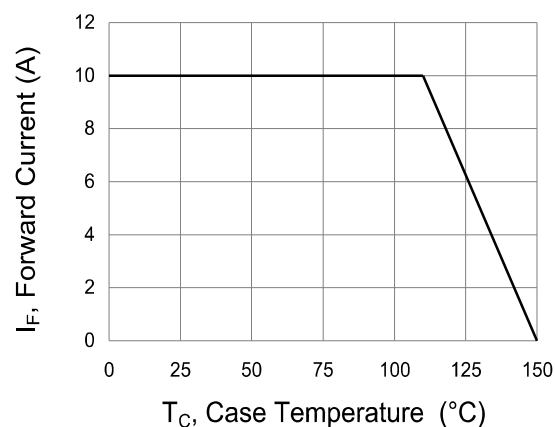


Fig. 1 Forward Power Dissipation

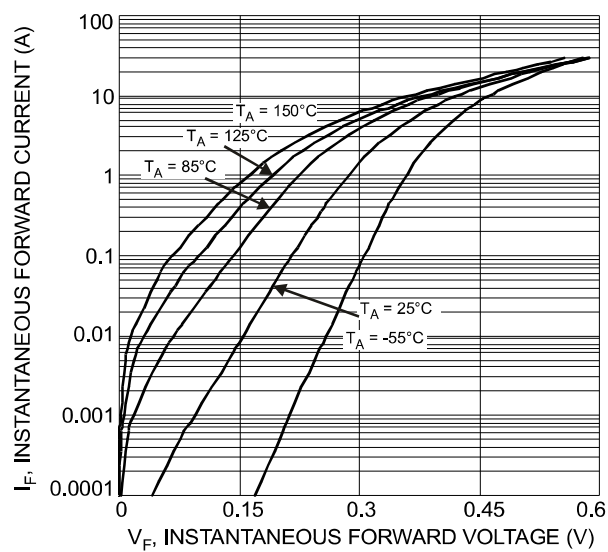


Fig. 2 Typical Forward Characteristics

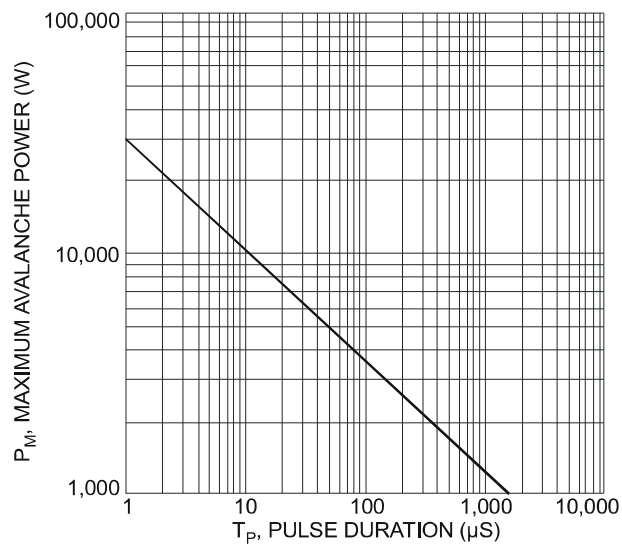


Fig. 4 Maximum Avalanche Power

The curve graph is for reference only, can't be the basis for judgment( 4" Ò™ o -5)