Zibo Seno Electronic Engineering Co., Ltd.

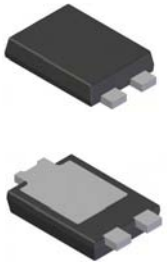
淄博圣诺

SR2045L

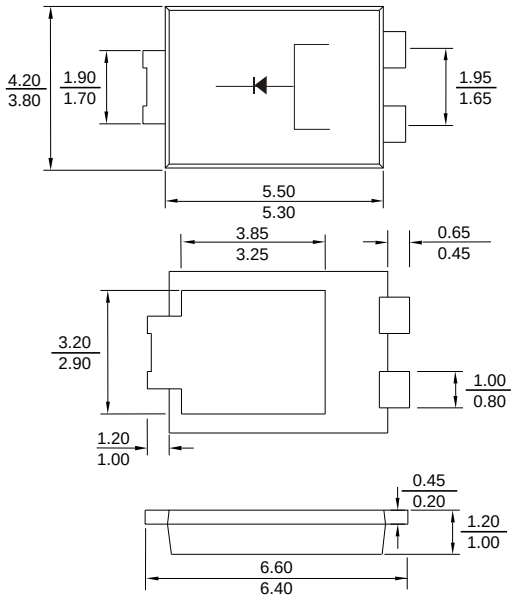
20.0A SUPER BARRIER RECTIFIER

Features

- Bypass Diodes for Solar Panels
- High Junction Temperture
- High Thermal Reliability
- Patented Super Barrier Rectifier Technology
- High Foward 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°C unless otherwise specified

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

Characteristic	Symbol	SR2045L	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	45	V
RMS Reverse Voltage	$V_{R(RMS)}$	32	V
Average Rectified Output Current (Note 1) @T_L = 90°C	I_O	20.0	A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	275	A
Forward Voltage Drop @I_F = 5A , Tj = 25°C @I_F = 20A,Tj = 25°C	V_{FM}	Typ. Typ. 0.40 - 0.485 0.63	V
Peak Reverse Current At Rated DC Blocking Voltage Tj = 25°C Tj = 100°C	I_R	0.3 10	mA
Repetitive Peak Avalanche Power(1us,25°C)	P_{ARM}	30000	W
Typical Thermal Resistance Junction to Ambient (Note 2) (Note 3)	$R_{\theta JA}$	70 15	°C/W
Operating Temperature Range @$V_R \le 80\% V_{RRM}$	T_J	-55 to +150	°C
Storage Temperature Range	T_{STG}	-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. Polymide 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

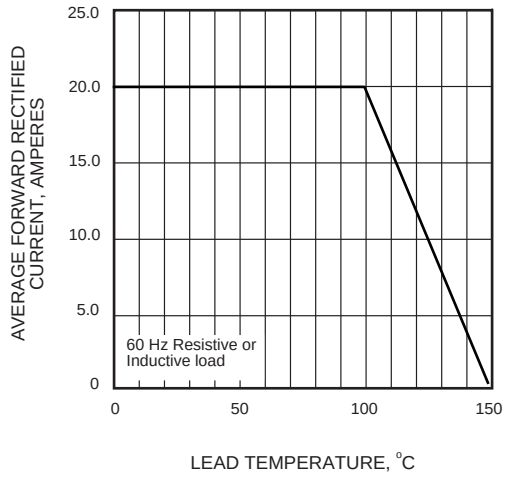


FIG.2 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

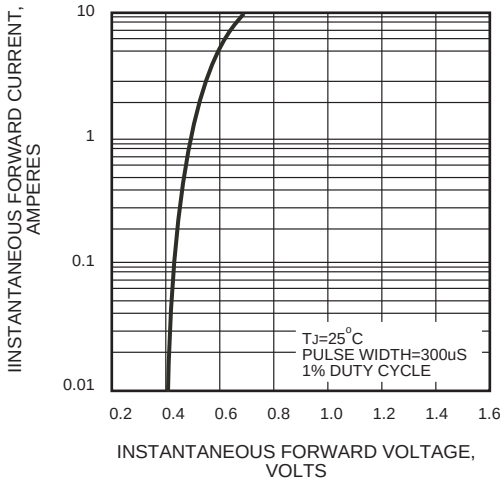


FIG.3 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

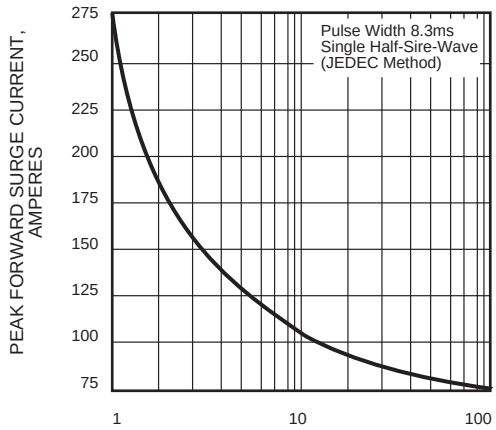


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

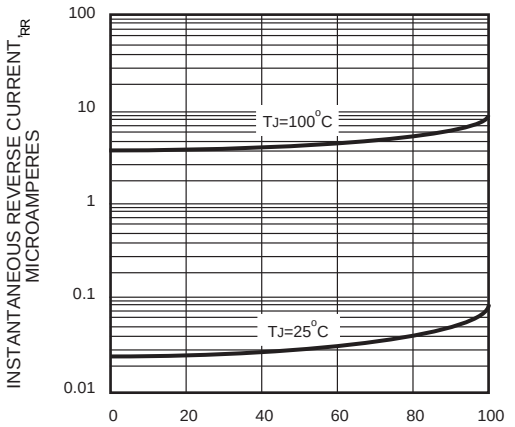


FIG.5 - TYPICAL JUNCTION CAPACITANCE