Zibo Seno Electronic Engineering Co., Ltd.

淄博圣诺

SR10T80L-SR10T200L

10A SURFACE MOUNT SCHOTTKY BARRIER DIODE

Features

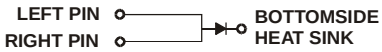
- Schottky Barrier Chip
- Bypass Diodes for Solar Panels
- High Junction Temperture
- High Thermal Reliability
- Patented Super Barrier Rectifier Technology
- High Foward Surge Capability
- Ultra Low Power Loss, High Efficiency
- Excellent High Temperature Stability



Top View



Bottom View



Note: Pins Left & Right must be electrically connected at the printed circuit board.

Mechanical Data

- Case:TO-277B Molded Plastic "Green" Molding Compound
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- 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%.

Parameter	Symbol	SR 10T80L	SR 10T100L	SR 10T120L	SR 10T150L	SR 10T200L	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC blocking voltage	V_{RRM} V_{RWM} V_{DC}	80	100	120	150	200	V
RMS Rectified Voltage	$V_{R(RMS)}$	56	70	84	105	140	V
Average Rectified Output Current (Note1)	I_O	10					A
Non-Repetitive Peak Forward Surge8.3ms Single Half Sine-Wave Superimposed on rated load(JEDEC Method) (Note2)	I_{FSM}	250					A
I^2t Rating for Fusing (t < 8.3ms)	I^2t	259.4					A^2s
Forward Voltage Drop T_A =25 ℃ @IF=1A T_A =25 ℃ @IF=5A T_A =25 ℃ @IF=10A	V_{FM}	Typ Max. 0.38 - 0.47 - 0.55 0.63	Typ Max. 0.38 - 0.47 - 0.55 0.63	0.65	Typ Max. 0.48 - 0.68 - 0.75 0.80	Typ Max. 0.52 - 0.73 - 0.81 0.85	V
Peak Reverse Curent T_A=25 ℃ At Rated DC Blocking Voltage T_A=100 ℃	I_R	0.3 15					mA
Typical Thermal Resistance Junctionto Ambient	$R_{\theta JA}$ $R_{\theta JL}$	110 3.5					℃ /W
Operating junction temperature range	T_J	-55 to +150					℃
storage temperature range	T_{STG}	-55 to +150					℃

Note:1.Valid Provided that are kept at ambient temperature at a distance of 9.5mm from the case.

2.Fr-4pcb.2oz.Copper,minimum recommend pad layout .18.8mm×14.4.Anode pad dimensions 5.6mm×14.4mm.

Alldatasheet

FIG.1 - FORWARD CURRENT DERATING CURVE

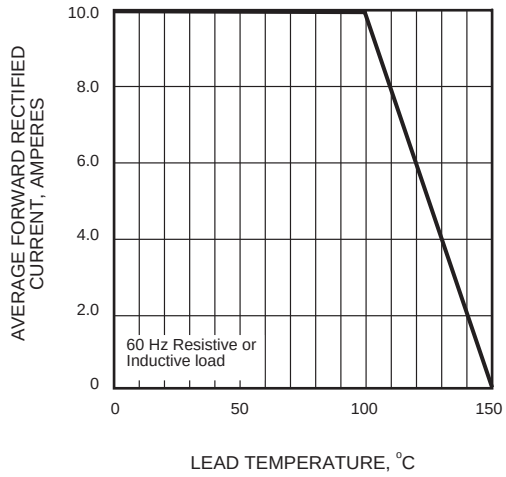


FIG.2 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

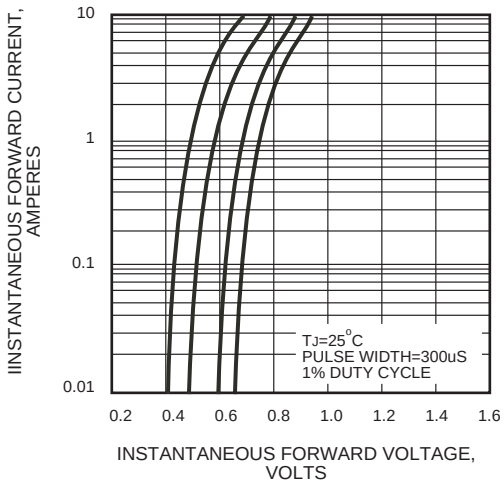


FIG.3 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

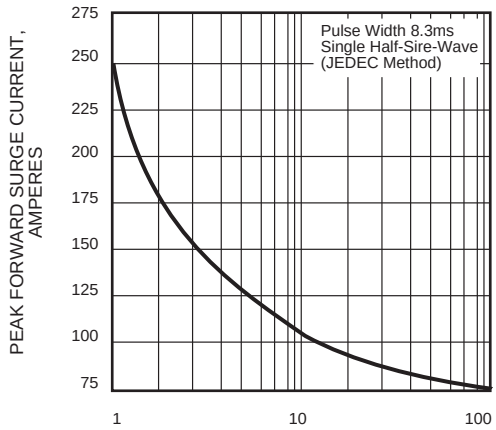


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

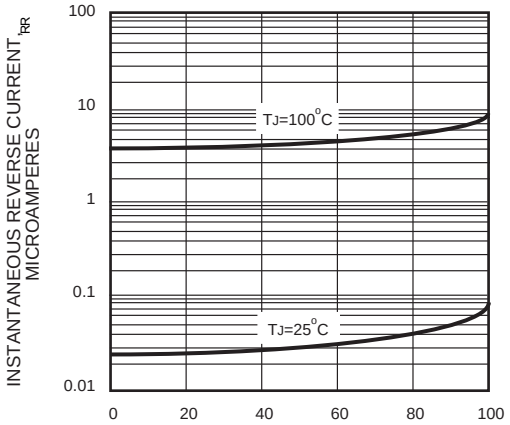
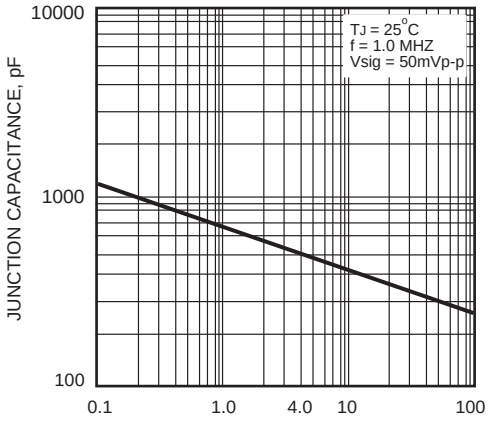


FIG.5 - TYPICAL JUNCTION CAPACITANCE

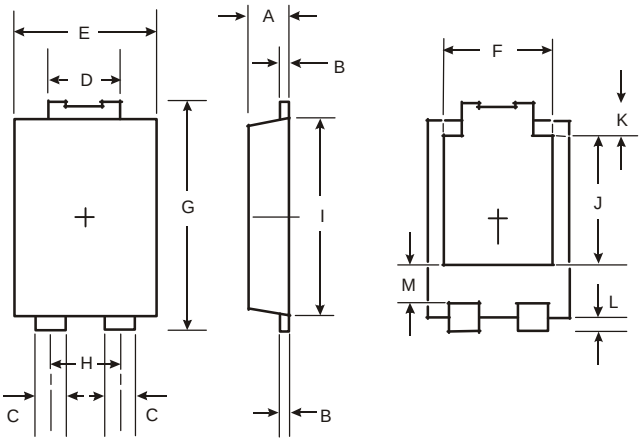


Alldatasheet

Ordering Information

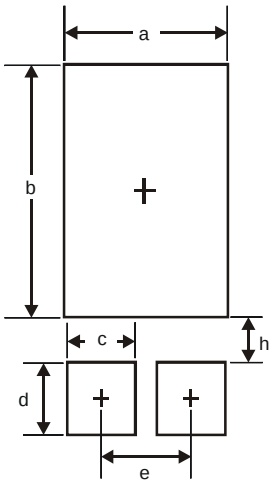
Part Number	Case	Packaging
SR10T**L	TO-277B	5000/Tape & Reel

Outline Dimensions



TO-277B		
Dim	Min	Max
A	1.05	1.15
B	0.33	0.43
C	0.80	0.99
D	1.70	1.88
E	3.90	4.05
F	3.054 Typ	
G	6.40	6.60
H	1.84 Typ	
I	5.30	5.45
J	3.549 Typ	
K	0.75	0.95
L	0.50	0.65
M	1.10	1.41
All Dimensions in mm		

Suggested Pad Layout



Dimensions	Value (in mm)
a	3.360
b	4.860
c	1.390
d	1.400
e	1.840
h	0.852

Alldatasheet