Zibo Seno Electronic Engineering Co., Ltd.

淄博圣诺

SB1045L-SB10200L

10A SURFACE MOUNT SCHOTTKY BARRIER DIODE

Features

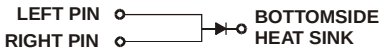
- Schottky Barrier Chip
- Bypass Diodes for Solar Panels
- High Junction Temperture
- High Thermal Reliability
- Patented Super Barrier Rectifier Technology
- High Foward Surge Capability
- Ultra Low Power Loss, High Efficiency
- Excellent High Temperature Stability



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	SB 1045L	SB 1050L	SB 1060L	SB 1080L	SB 10100L	SB 10150L	SB 10200L	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC blocking voltage	V_{RRM} V_{RWM} V_{DC}	45	50	60	80	100	150	200	V
RMS Rectified Voltage	$V_{R(RMS)}$	32	35	42	56	70	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}	150							A
I^2t Rating for Fusing (t < 8.3ms)	I^2t	93.4							A^2s
Forward Voltage Drop T_A=25℃ @IF=10A	V_{FM}	0.50		0.55	0.75		0.90		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	$R_{\theta JA}$ $R_{\theta JL}$	80 10							℃ /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.

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FIG.1 - FORWARD CURRENT DERATING CURVE

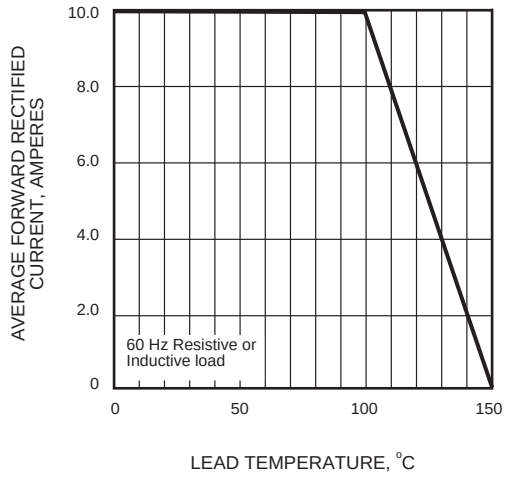


FIG.2 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

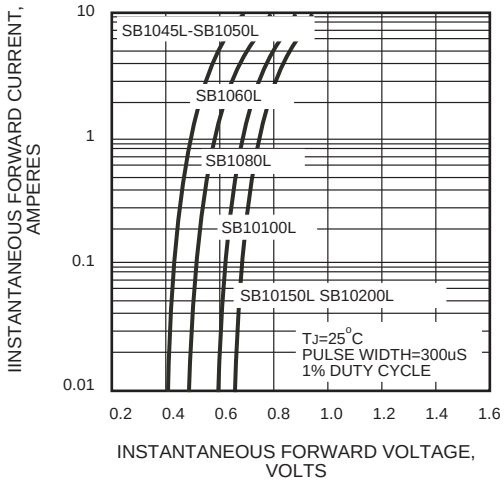


FIG.3 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

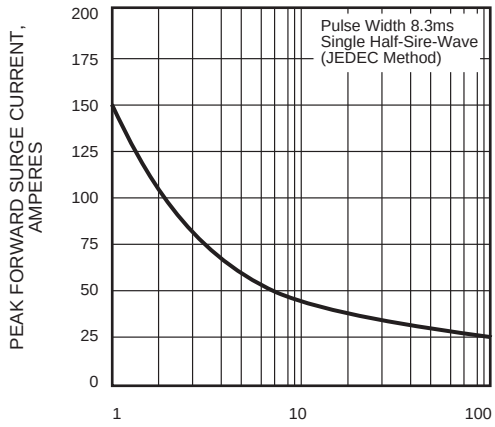


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

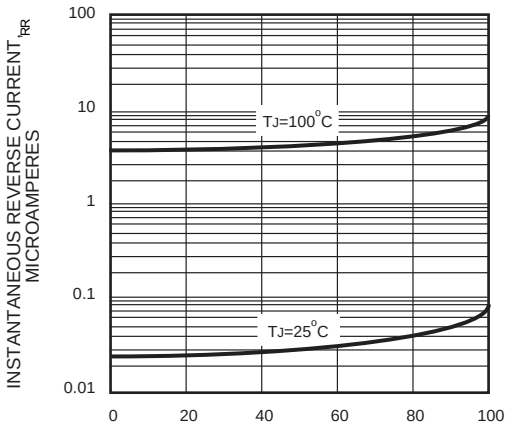
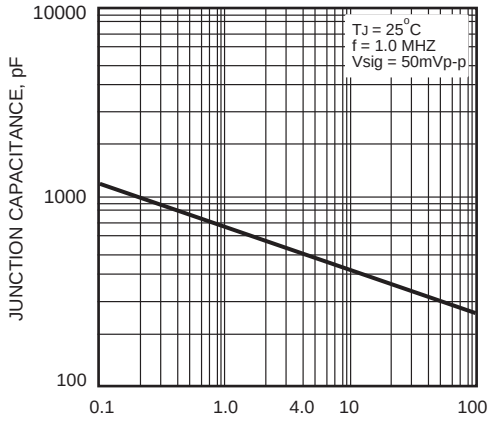


FIG.5 - TYPICAL JUNCTION CAPACITANCE

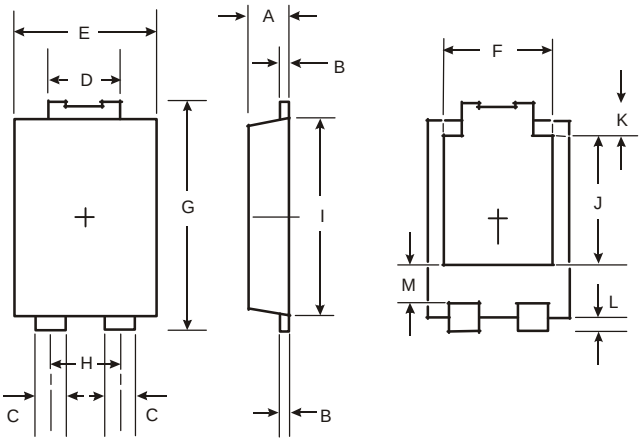


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Ordering Information

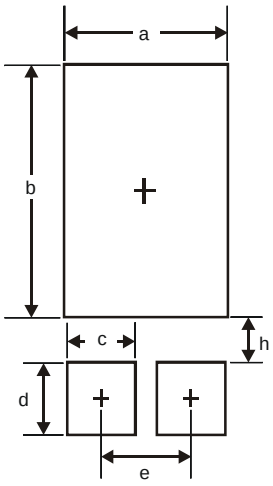
Part Number	Case	Packaging
SB10**L	TO-277B	5000/Tape & Reel

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

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