

SINLOON®

肖特基二極管
Case: TO-220A

SB1020 - SB10100
10A Schottky Barrier Rectifier

Feature

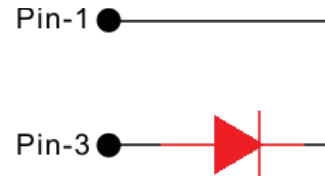
- ◆ Schottky Barrier Chip
- ◆ Guard Ring for Transient Protection
- ◆ Low Forward Voltage Drop
- ◆ Low Reverse leakage Current
- ◆ High Surge Current Capability
- ◆ Plastic Material has UL Flammability Classification 94V-0

Figure



Mechanical Data

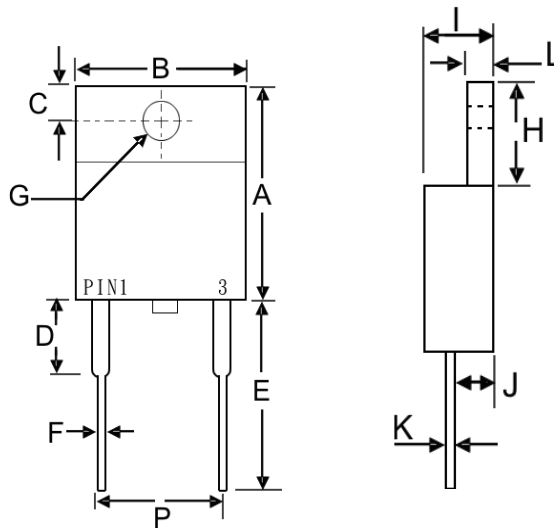
- ◆ Case: TO-220A, Full Moldes Plastic
- ◆ Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- ◆ Polarity: See Diagram
- ◆ Weight: 2.24 grams (approx)
- ◆ Mounting Position: Any
- ◆ Mounting Torque: 11.5 cm·kg (10 in·lbs) max.
- ◆ Lead Free: For RoHS / Lead Free Version Add "-LF" Suffix to part Number.



Dimension

Case: TO-220A (mm)

Dim.	Min.	Max.
A	13.9	15.9
B	9.8	10.7
C	2.54	3.43
D	3.56	4.56
E	12.7	14.73
F	0.51	0.96
G (Φ)	3.6	4.09
H	5.75	6.85
I	4.16	5.0
J	2.03	2.92
K	0.3	0.65
L	1.14	1.4
P	4.83	5.33



Marking Information

- SB10xx = Device Number
- xx = See Page 2 SB Part
- Polarity = As Marked Body



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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%.

Characteristics	Symbol	SB 1020	SB 1030	SB 1040	SB 1045	SB 1050	SB 1060	SB 1080	SB 10100	Unit
Peak Repetitive Reverse Voltage	V _{RRM}									
Working Peak Reverse Voltage	V _{RWM}	20	30	40	45	50	60	80	100	V
DC Blocking Voltage	V _R									
RMS Reverse Voltage	V _{R(RMS)}	14	21	28	32	35	42	56	70	V
Average Rectified Output Current @T _L =9	I _O	10		10		10		10		A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC	I _{FSM}	150		150		150		150		A
Forward Voltage @I _F =10A	V _{FM}	0.55		0.75		0.85				V
Peak Reverse Current @T _A = 25°C	I _{RM}	0.5								mA
At Rated DC Blocking Vol. @T _A =100°C		50								
Typical Junction Capacitance (Note 1)	C _j	700								pF
Typical Thermal Resistance (Note 2)	R _{θJC}	2.0								°C/W
Operating and Storage Temperature Range	T _i , T _{STG}	-65 to +150								°C

Note 1: Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.

Note 2: Thermal resistance junction to case mounted on heatsink.

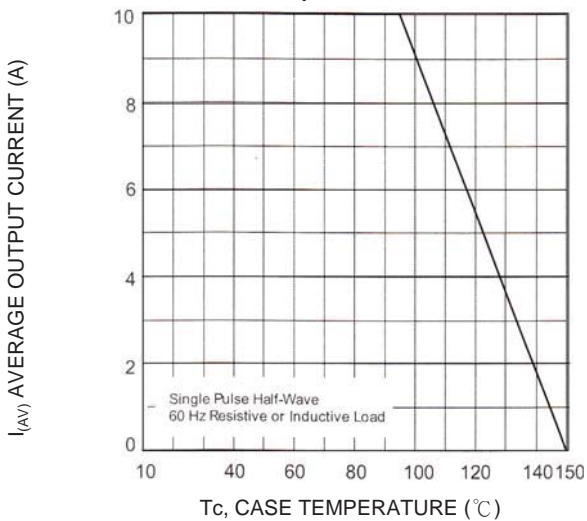


Fig-1 Forward and Current Derating Curve

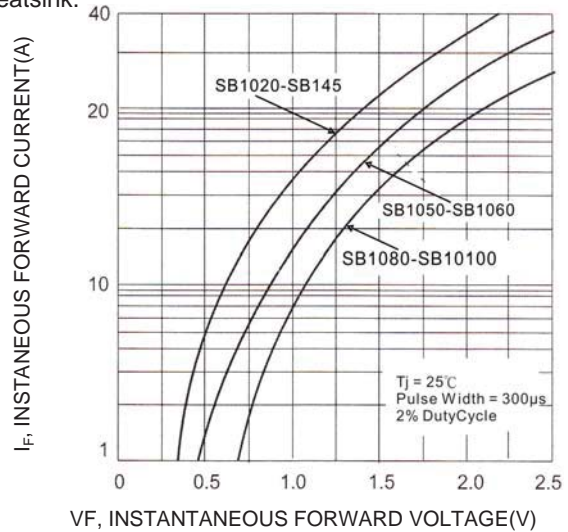


Fig-2 Typical Forward Characteristics

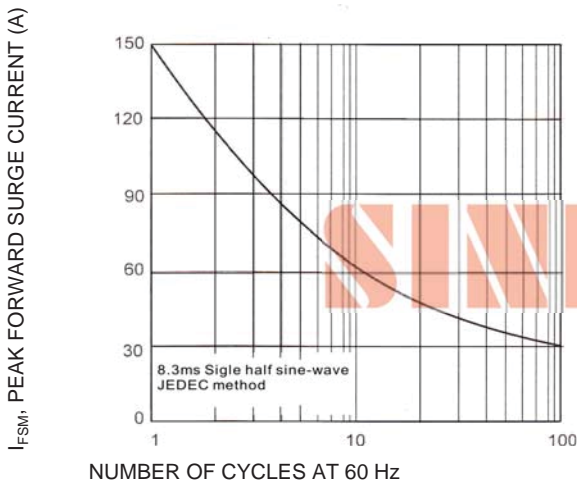


Fig-3 Maximum Non-Repetitive Peak FWD Surge Current

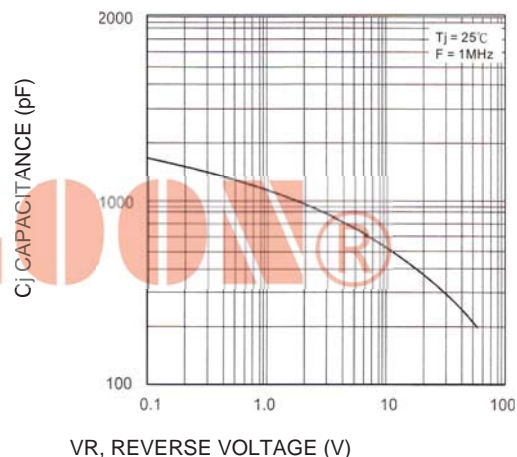


Fig-4 Typical Junction Capacitance



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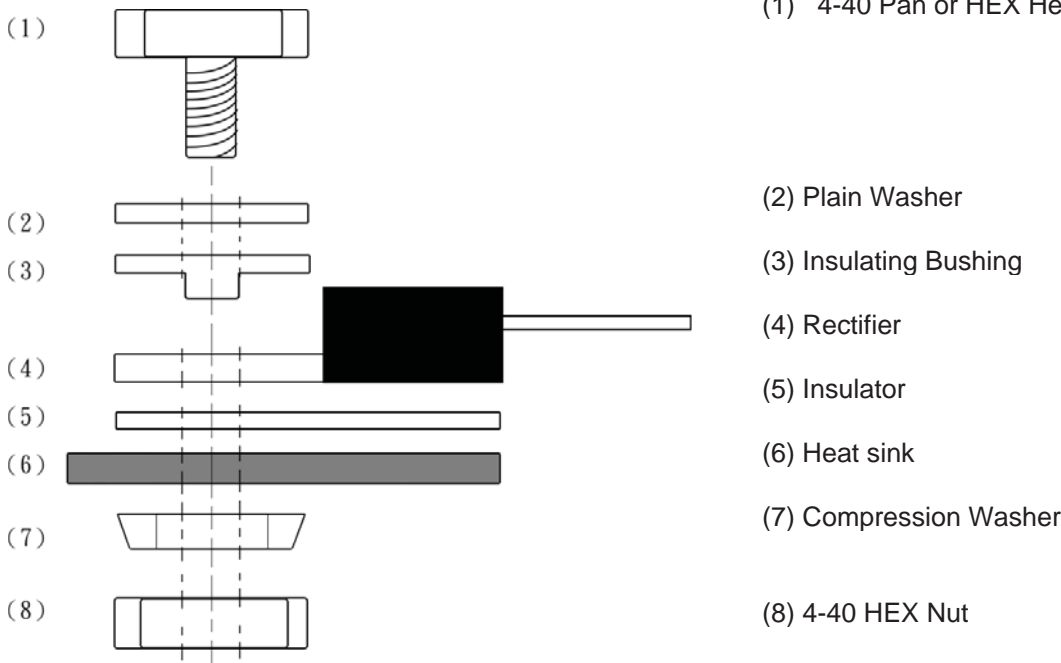
Packaging Information

Tube Size LxWxH (mm)	Quantity (Pcs)	Inner Box Size LxWxH (mm)	Quantity (Pcs)	Carton Size LxWxH (mm)	Quantity (Pcs)	Gross Weight
525 x 31 x 6	50	555x145x95	2000	572x306x218	8000	19.0kg

Note: Anti-static tube. Water clear color.

◆ Shipping quantity given is for minimum packing quantity only. For minimum order quantity, please consult the Sales Department.

Recommended Screw Mount Arrangement



◆ Recommended isolated mounting when screw is at heat sink potential, 4-40 hardware is used.

◆ Screw should not be tightened with any type of air-forced torque or equipment that may cause high impact on device package. The insulating bushing inside the mounting hole will insure the screw threads do not contact the metal base.

◆ The interface should apply a layer of thermal grease or a highly conductive thermal pad for better heat dissipation

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※Mayloon characteristic parameters of electronic product specification changes or updates without notice to improve .

