

SINLOON®

肖特基二極管
Case: ITO-220A

SB1020F - SB10100F
10A Schottky Barrier Rectifier

Feature

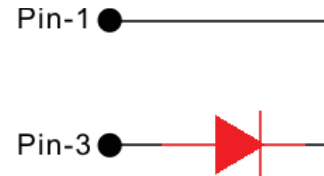
- ◆ Schottky Barrier Chip
- ◆ Guard Ring for Transient Protection
- ◆ Low Forward Voltage Drop
- ◆ Low Reverse leakage Current
- ◆ High Surge Current Capability
- ◆ Plastic Material has UL Flammability Classification 94V-0

Figure



Mechanical Data

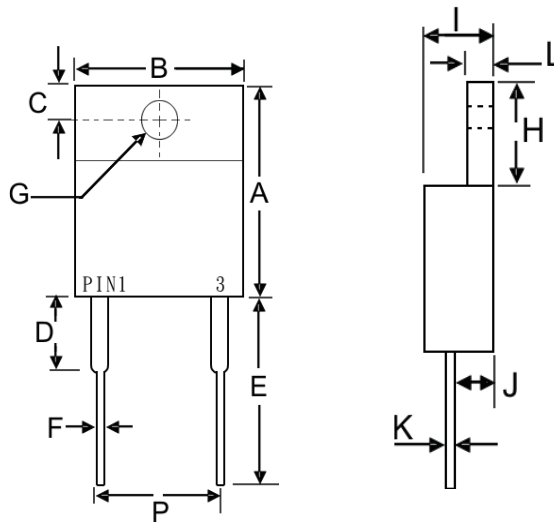
- ◆ Case: ITO-220A, Full Moldes Plastic
- ◆ Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- ◆ Polarity: See Diagram
- ◆ Weight: 2.24 grams (approx)
- ◆ Mounting Position: Any
- ◆ Mounting Torque: 11.5 cm·kg (10 in·lbs) max.
- ◆ Lead Free: For RoHS / Lead Free Version Add "-LF" Suffix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



Dimension

Case: ITO-220A (mm)

Dim.	Min.	Max.
A	14.6	15.4
B	9.7	1.3
C	2.55	2.85
D	3.56	4.16
E	13.0	13.8
F	0.3	0.9
G (Φ)	3.0	3.5
H	6.3	6.9
I	4.2	4.8
J	2.5	2.9
K	0.36	0.8
L	2.9	3.3
P	4.83	5.33



Marking Information

- SB10xxF = 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 1020F	SB 1030F	SB 1040F	SB 1045F	SB 1050F	SB 1060F	SB 1080F	SB 10100F	Unit	
Peak Repetitive Reverse Voltage	V _{RRM}									V	
Working Peak Reverse Voltage	V _{RWM}	20	30	40	45	50	60	80	100	V	
DC Blocking Voltage	V _R									V	
RMS Reverse Voltage	V _{R(RMS)}	14	21	28	32	35	42	56	70	V	
Average Rectified Output Current @T _L =90°C	I _O	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		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}	4.0									°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.

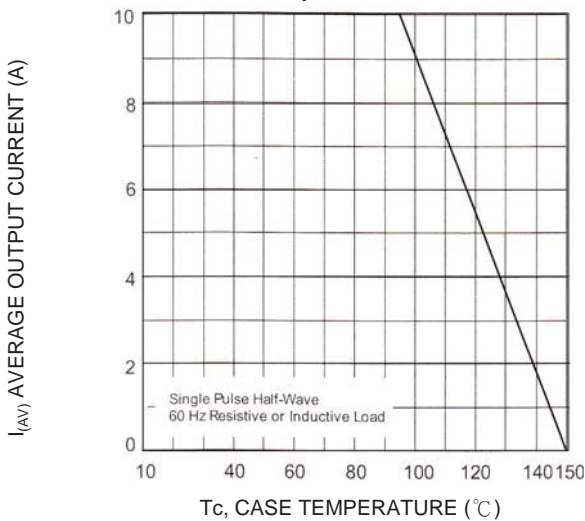


Fig-1 Forward and Current Derating Curve

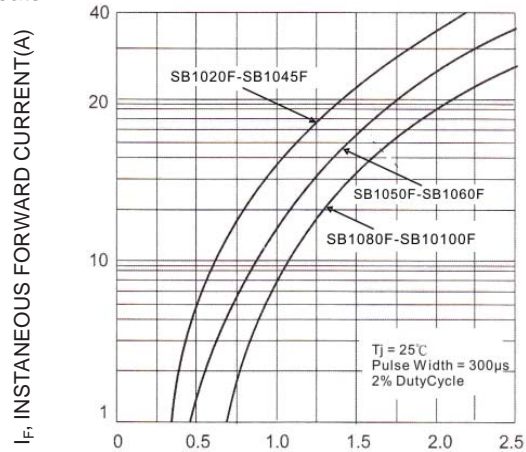


Fig-2 Typical Forward Characteristics

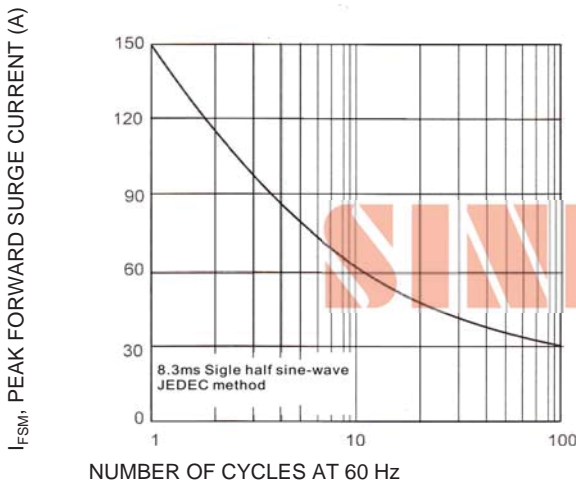


Fig-3 Maximum Non-Repetitive Peak FWD Surge Current

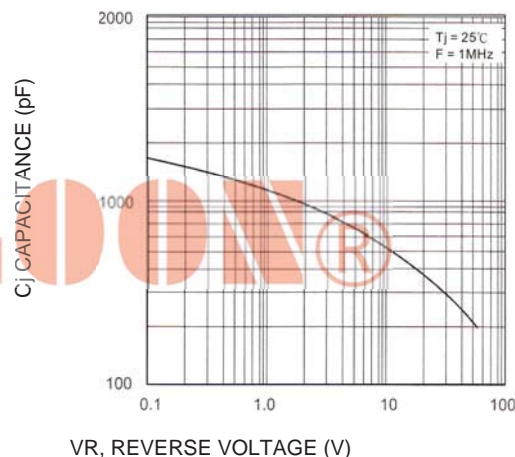


Fig-4 Typical Junction Capacitance



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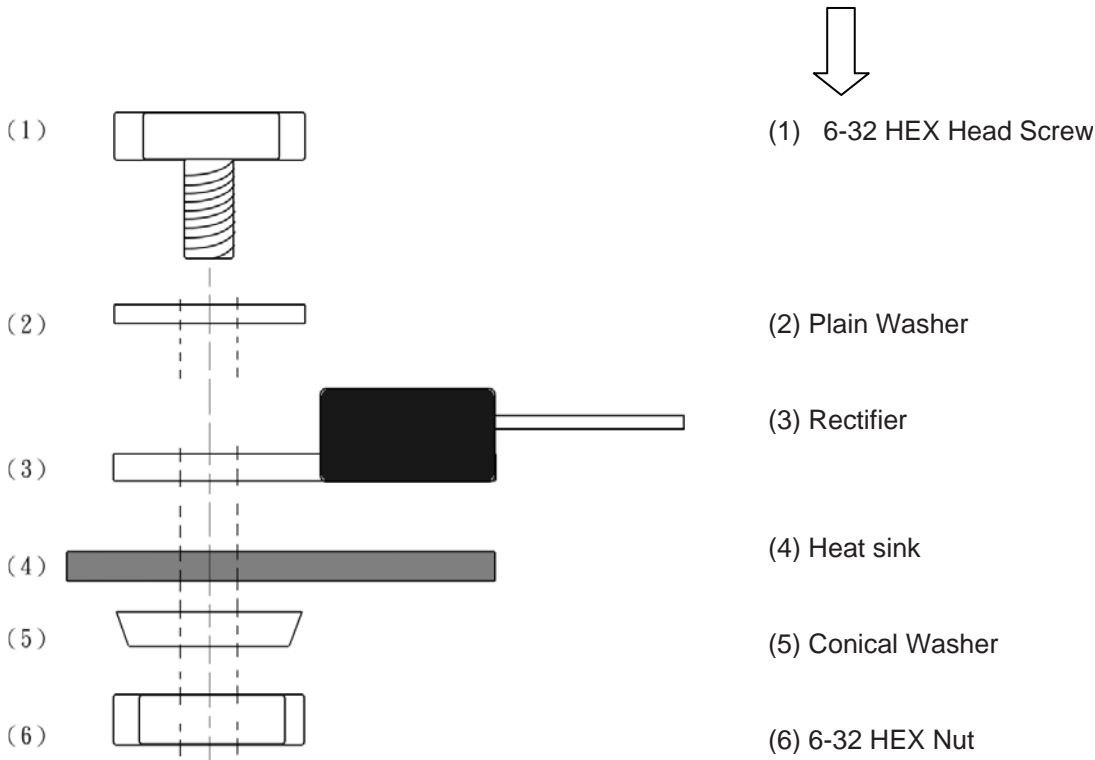
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Packaging Information

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.

Recommended Screw Mount Arrangement



◆ The full molded plastic package affords a major reduction of hardware as compared to a standard TO-220 package. However, precaution should be made in mounting procedure.

◆ A conical washer should be used to apply proper force to the device. Screw should not be tightened with any type of air-forced torque or equipment that may cause crack on device package.

◆ A layer of thermal grease or thermal pad in the interface will be considerably helpful for heat dissipation.

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

