

SINLOON®

肖特基二極管
Case: ITO-220

SB2020FCT - SB20100FCT
20A Dual 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



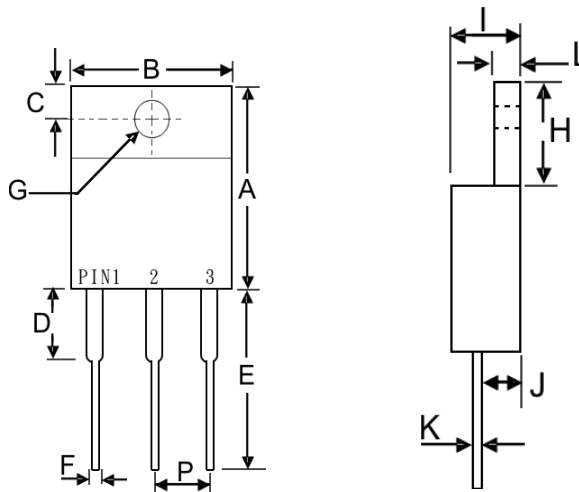
Mechanical Data

- ◆ Case: ITO-220, 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

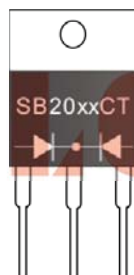
Case: ITO-220 (mm)

Dim.	Min.	Max.
A	14.6	15.4
B	9.7	10.3
C	2.55	2.85
D	2.7	3.3
E	13.0	13.8
F	0.5	0.75
G (Φ)	3.0	3.5
H	6.3	6.9
I	4.2	4.8
J	2.5	2.9
K	0.5	0.75
L	2.7	3.15
P	2.29	2.79



Marking Information

SB20xxFCT = Device Number
xx = See Page 2
Polarity = As Marked Body



Electrical Symbol



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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	SB20								Unit	
		20FCT	30FCT	40FCT	45FCT	50FCT	60FCT	80FCT	100FCT		
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 _C =95°C	I _O	20.0		20.0			20.0			A	
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC	I _{FSM}	200		200			200			A	
Forward Voltage @I _F =8.0A	V _{FM}	0.55		0.75			0.85			V	
Peak Reverse Current @T _A = 25°C At Rated DC Blocking Vol. @T _A =100°C	I _{RM}				0.5					mA	
Typical Junction Capacitance (Note 1)	C _j				1100						pF
Operating and Storage Temperature Range	T _J , T _{STG}	-65 to +150								°C	

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

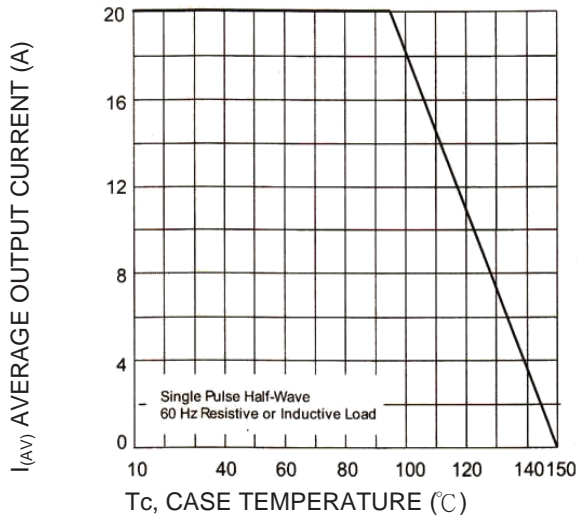


Fig-1 Forward and Current Derating Curve

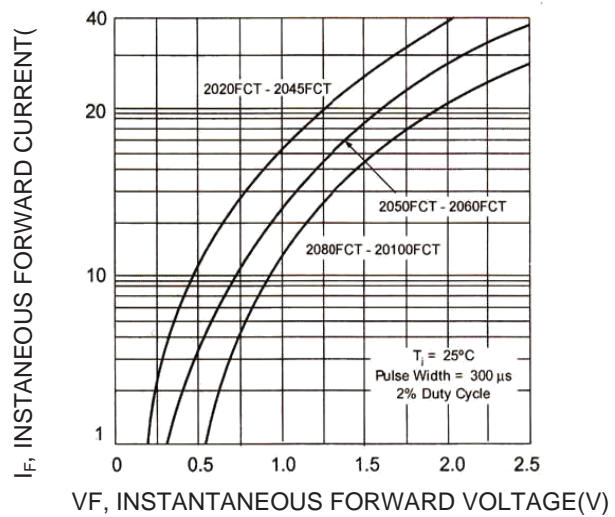


Fig-2 Typical Forward Voltage Characteristics

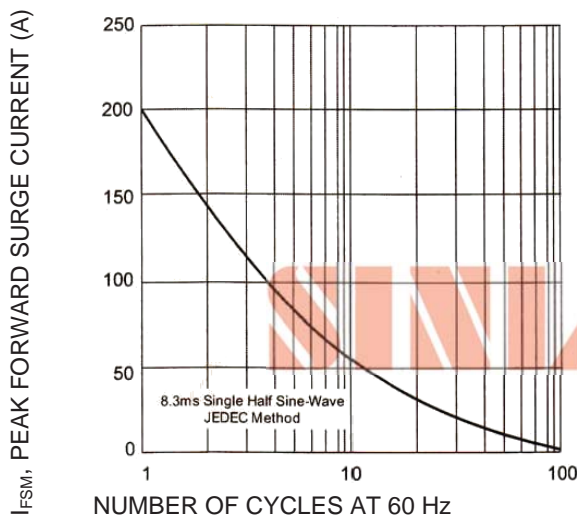


Fig-3 Max. Non-Repetitive Peak Forward Surge Current

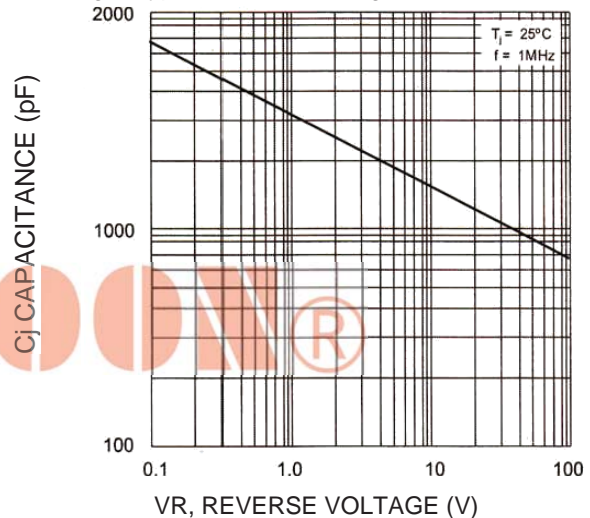


Fig-4 Typical Junction Capacitance



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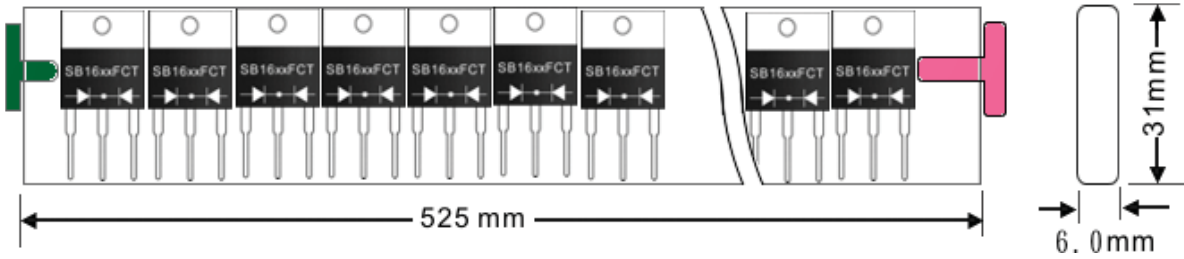
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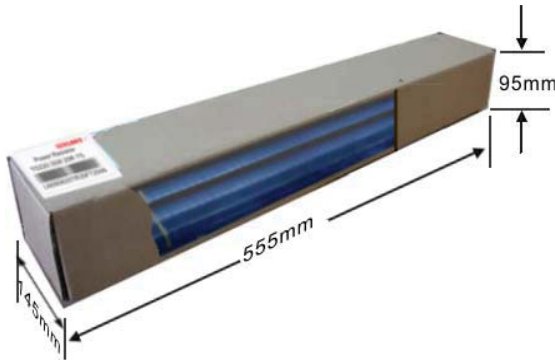
Packaging Information

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

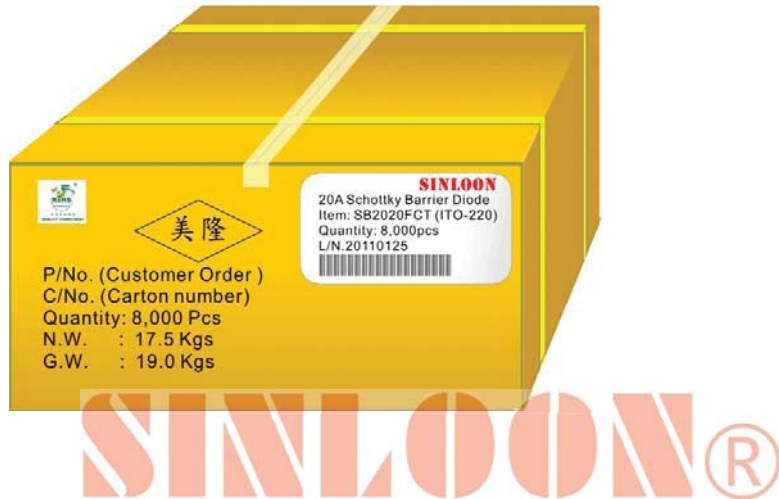
Anti-static tube: Quantity: 50 pcs



Inner Box : Quantity: 2000 pcs



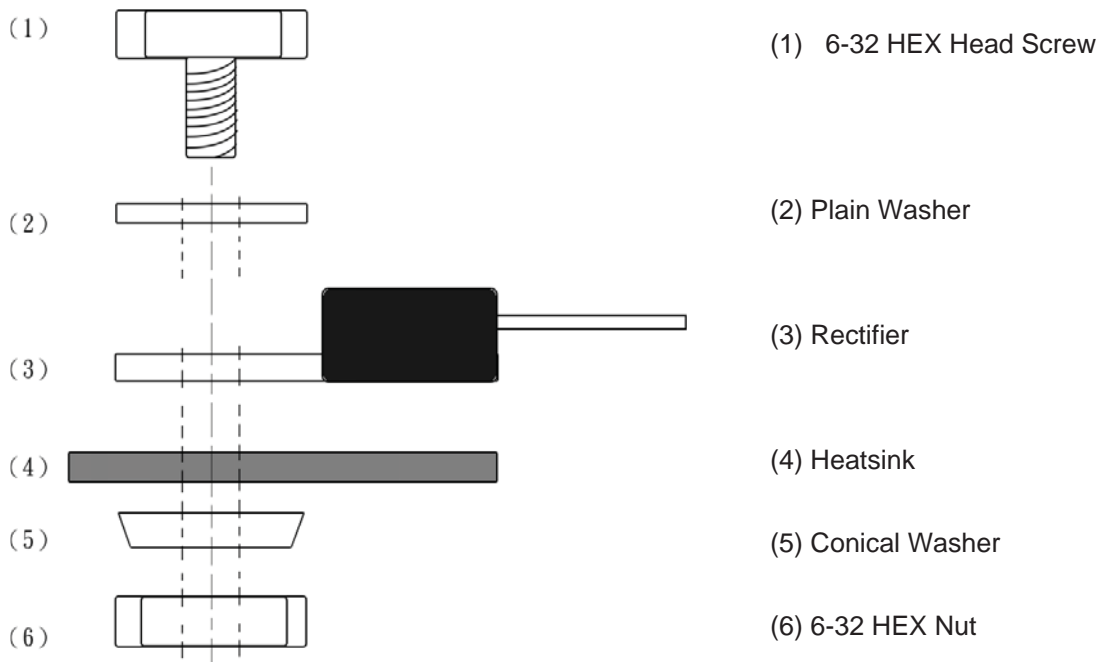
Carton Package: Quantity: 8000 pcs



□ Package Mounting Guide

It is important that the packages are correctly mounted if full functionality is to be achieved. Mounting of the package to a heat sink must be done such that there is sufficient pressure from the mounting screws to insure good contact with the heat sink for efficient heat flow. Incorrect mounting may lead to both thermal and mechanical problems. Over tightening the mounting screws will cause the package to warp reducing the contact area with the heat sink and increasing the thermal resistance from the package case to the heat sink, resulting in higher operating die temperatures. Extreme over tightening of the mounting screws beyond the recommended torque force will cause severe physical stress resulting in cracked die and catastrophic IC failure. Though the reliability of the package is excellent, the use of inappropriate techniques or unsuitable tools during the mounting process can affect the long term reliability of the device and even damage it.

□ 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。