SINLOON®

肖特基二極管

Case: ITO-220

SB2520FCT - SB25100FCT

25A Dual Schottky Barrier Rectifier

☐ Feature

Figure

- ◆ 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

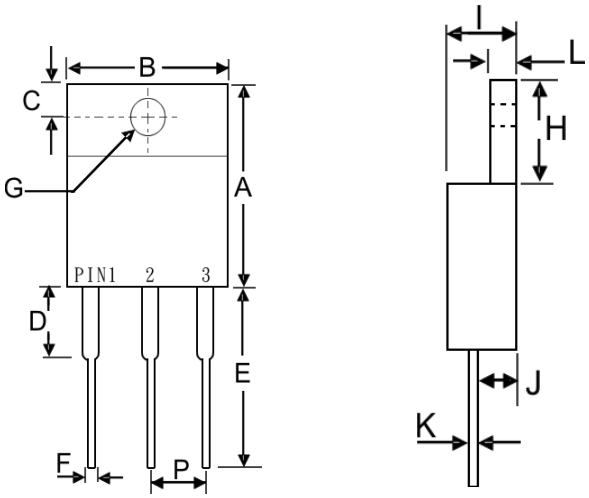
☐ Mechanical Data

- ◆ 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

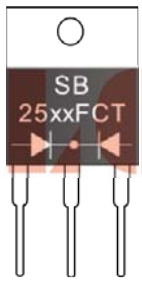
Case: ITO-220 (mm)

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

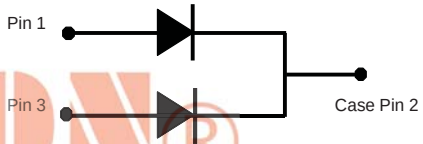


☐ Marking Information

SB25xxFCT = Device Number
xx = See Page 2
Polarity = As Marked Body



☐ Electrical Symbol



品質承諾標誌
QUALITY COMMITMENT

SINLOON®

肖特基二極管

SB2520FCT - SB25100FCT

Case: ITO-220

25A Dual Schottky Barrier Rectifier

☐ Maximum Ratings and Electrical Characteristics @T_A=25℃ unless otherwise specified

Single Phase, half wave, 60Hz, resistive or inductive load For capacitive load, derate current by 20%.

Characteristics	Symbol	SB25								Unit
		20FCT	30FCT	40FCT	45FCT	50FCT	60FCT	80FCT	100FCT	
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	20	30	40	45	50	60	80	100	V
RMS Reverse Voltage	$V_{R(RMS)}$	14	21	28	32	35	42	56	70	V
Average Rectified Output Current @T_C=95℃	I_O	25.0			25.0			25.0		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=12.5A	V_{FM}	0.55			0.75			0.85		V
Peak Reverse Current @T_A = 25℃ At Rated DC Blocking Vol. @T_A=100℃	I_{RM}	0.5 100								mA
Typical Junction Capacitance (Note 1)	C_j	1100								pF
Operating and Storage Temperature Ran	T_j,T_{STG}	-65 to +150								℃

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

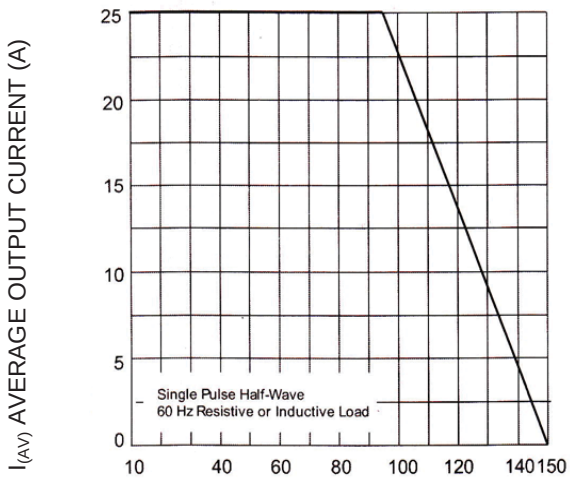


Fig-1 Forward and Current Derating Curve

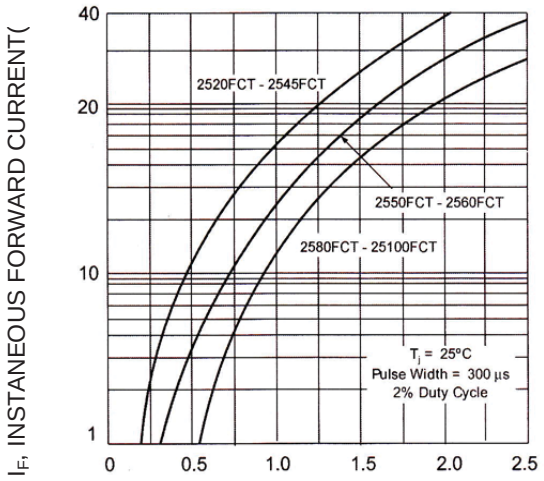


Fig-2 Typical Forward Voltage Characteristics

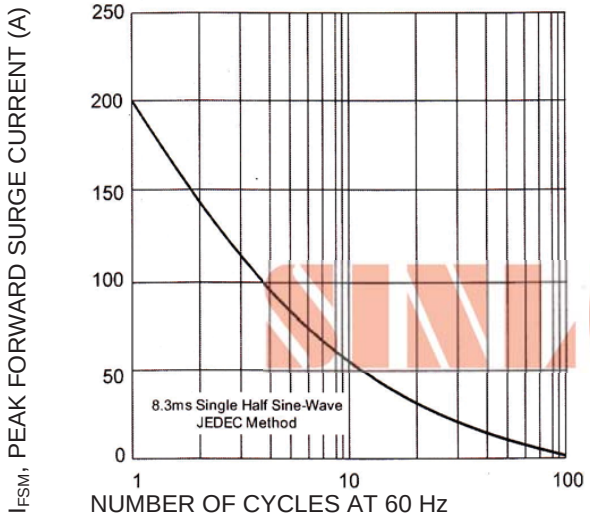


Fig-3 Max. Non-Repetitive Paek Forward Surge Current

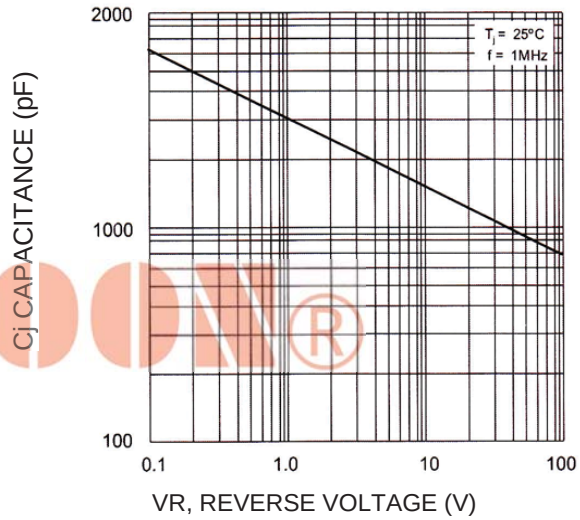


Fig-4 Typical Junction Capacitan

RoHS Compliant
品質承諾標誌
QUALITY COMMITMENT

SINLOON®

肖特基二極管

Case: ITO-220

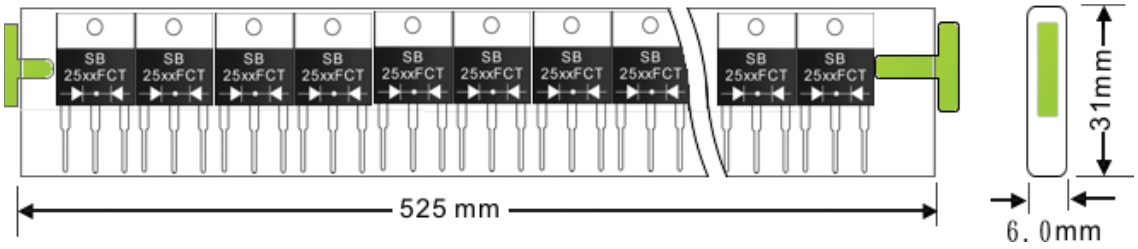
SB2520FCT - SB25100FCT

25A Dual Schottky Barrier Rectifier

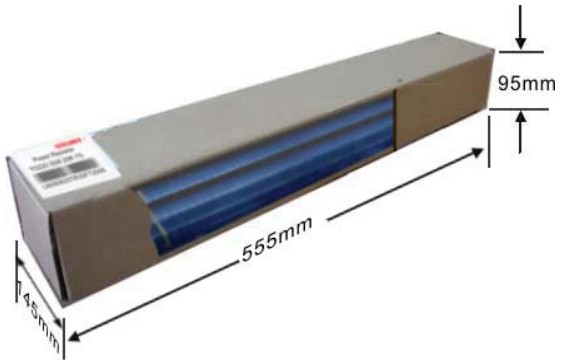
☐ Packaging Information

Tube Size LxWxH (mm)	Quantity (Pcs)	Inner Box Size LxWxH (mm)	Quantity (Pcs)	Carton Size LxWxH (mm)	Quantity (Pcs)	Gross Weight
525 x 31 x6	50	555x145x95	2000	572x306x218	8000	19.0kg

Anti-static tube: Quantity: 50 pcs



Inner Box : Quantity: 2000 pcs



Carton Package: Quantity: 8000 pcs

RoHS Compliant
品質承諾標誌
QUALITY COMMITMENT

SINLOON®

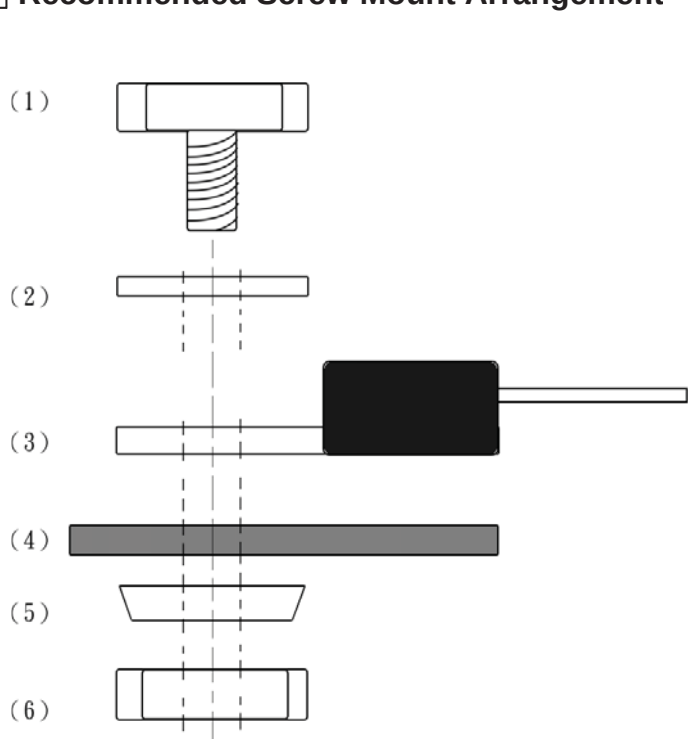
肖特基二極管
Case: ITO-220

SB2520FCT - SB25100FCT
25A Dual Schottky Barrier Rectifier

☐ 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



(1) 6-32 HEX Head Screw

(2) Plain Washer

(3) Rectifier

(4) Heatsink

(5) Conical Washer

(6) 6-32 HEX Nut

◆ 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 toque 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.

※美隆公司產品規格及其特性參數的改變或更新恕不另行通知。

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

品質承諾標誌
QUALITY COMMITMENT