

**SINLOON®**

肖特基二極管

Case: TO-263

**SB1020DC - SB10100DC**

**10A Surface Mount Dual Schottky Barrier Rectifier**

**Feature**

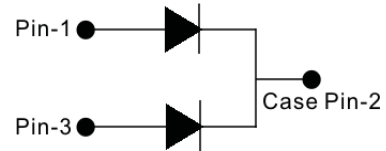
- ◆ Schottky Barrier Chip
- ◆ Guard Ring Die Construction For Transient Protection
- ◆ Low Forward Voltage Drop
- ◆ Low Power Loss, High Efficiency
- ◆ High Surge Current Capability
- ◆ For Use in Low Voltage, High Frequency Inverters, Free Wheeling and Polarity Protection Applications.

Figure



**Mechanical Data**

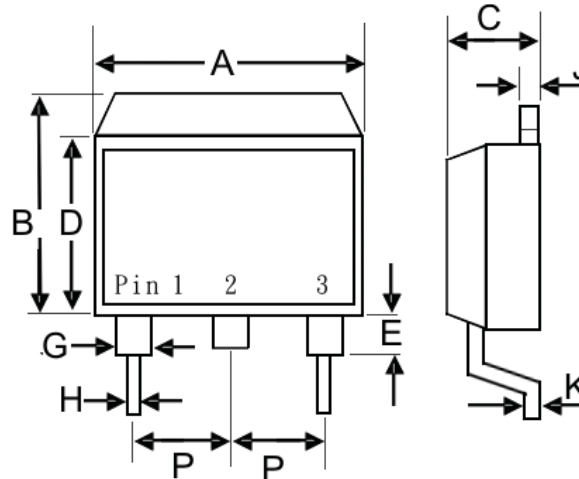
- ◆ Case: D<sup>2</sup>PAK/TO-263, Molded Plastic
- ◆ Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- ◆ Polarity: See Diagram
- ◆ Weight: 1.7 grams (approx)
- ◆ Mounting Position: Any
- ◆ Marking: Type Number
- ◆ Lead Free: For RoHS / Lead Free Version Add "-LF" Suffix to part Number.



**Dimension**

Case: D<sup>2</sup>PAK/TO-263 (mm)

Dim.	Min.	Max.
A	9.8	10.4
B	9.6	10.6
C	4.4	4.8
D	8.5	9.1
E	2.8	---
G	1.0	1.4
H	---	0.9
J	1.2	1.4
K	0.3	0.7
P	2.35	2.75



**Marking Information**

- SB10xxCT = Device Number
- xx = See Page 2 SB Part
- Polarity = As Marked Body



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10A Surface I

**10A Dual Schottky Barrier Rectifier**

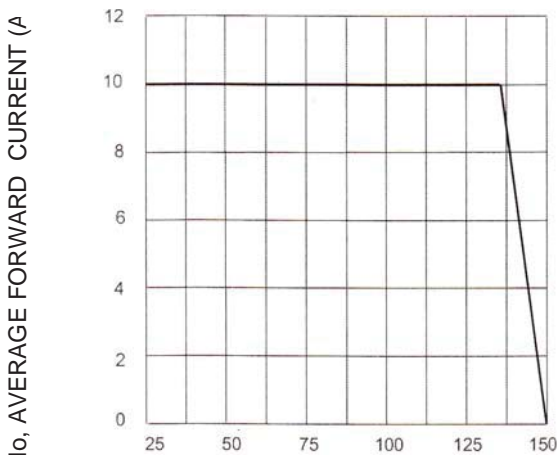
**Maximum Ratings and Electrical Characteristics @ $T_A=25^\circ\text{C}$  unless otherwise specified**

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

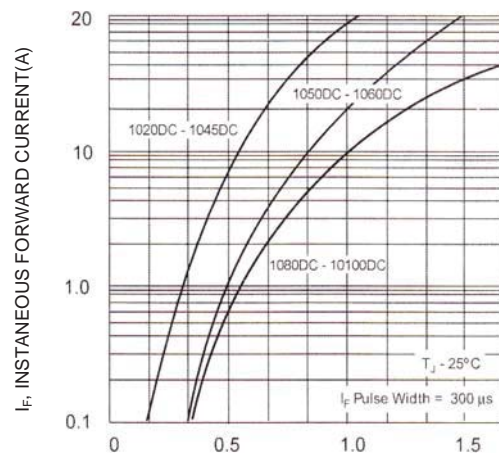
Characteristics	Symbol	SB	SB	SB	SB	SB	SB	SB	SB	Unit
		1020DC	1030DC	1040DC	1045DC	1050DC	1060DC	1080DC	10100DC	
Peak Repetitive Reverse Voltage	$V_{RRM}$									
Working Peak Reverse Voltage	$V_{RWM}$	20	30	40	45	50	60	80	100	V
DC Blocking Voltage	$V_R$									
RMS Reverse Voltage	$V_{R(RMS)}$	14	21	28	32	35	42	56	70	V
Average Rectified Output Current @ $T_C=135^\circ\text{C}$	$I_O$	10	10	10	10	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	150	150	150	150	A
Forward Voltage @ $I_F=5.0\text{A}$	$V_{FM}$	0.55	0.55	0.55	0.55	0.75	0.75	0.85	0.85	V
Peak Reverse Current @ $T_A=25^\circ\text{C}$	$I_{RM}$	1								mA
At Rated DC Blocking Vol. @ $T_A=100^\circ\text{C}$		50								
Typical Junction Capacitance (Note 1)	$C_j$	550								pF
Typical Thermal Resistance (Note 2)	$T_{\theta JC}$	2.0								$^\circ\text{C/W}$
Operating and Storage Temperature Range	$T_i, T_{STG}$	-65 to +150								$^\circ\text{C}$

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

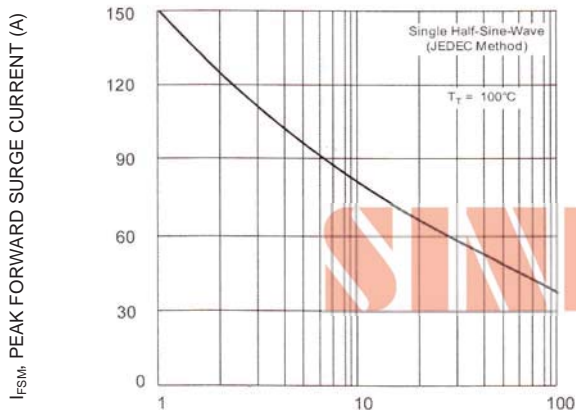
Note 2: Mounfed on minimum recommended pad size on FR-4 board.



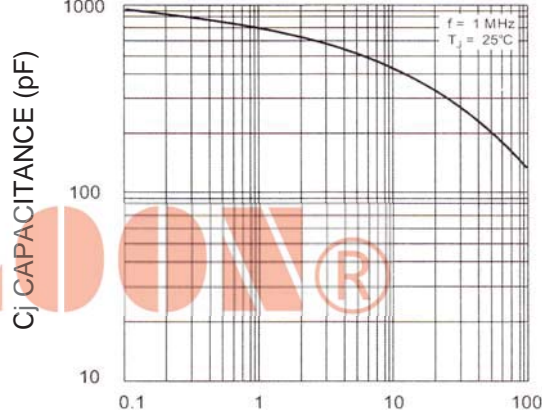
$T_C$ , CASE TEMPERATURE ( $^\circ\text{C}$ )  
Fig-1 Forward and Current Derating Curve



$V_F$ , INSTANTANEOUS FORWARD VOLTAGE(V)  
Fig-2 Typical Forward Characteristics



NUMBER OF CYCLES AT 60 Hz  
Fig-3 Maximum Non-Repetitive Paek  
FWD Surge Current



$V_R$ , REVERSE VOLTAGE (V)  
Fig-4 Typical Junction Capacitance



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**Packaging Information**

Reel Dimension (mm)	Quantity (Pcs)	Inner Box Size LxWxH (mm)	Quantity (Pcs)	Carton Size LxWxH (mm)	Quantity (Pcs)	Gross Weight
330	800	340x337x45	800	370x370x420	6400	15Kg

Reel Pack



Cartons Package



**SINLOON®**

※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。

