

SB5100L SCHOTTKY RECTIFIER

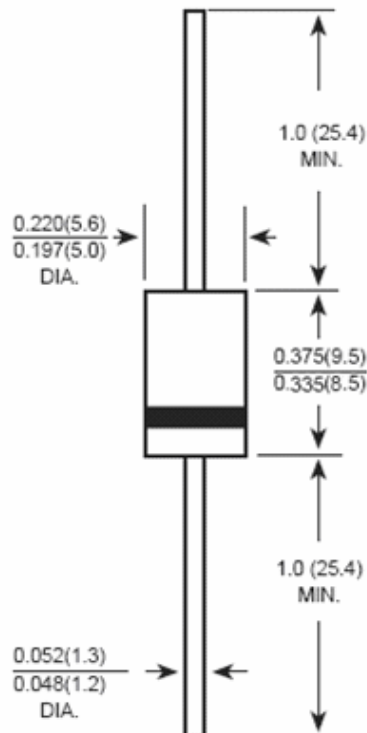
Applications:

- Switching power supply
- Converters
- Free-Wheeling diodes
- Reverse battery protection
- Disk drives
- Battery charging

Features:

- Schottky Barrier Chip
- Guard Ring Die Construction for Transient Protection
- High Current Capability
- Low Power Loss, High Efficiency
- High Surge Current Capability
- For Use in Low Voltage, High Frequency Inverters, Free Wheeling, and Polarity Protection Applications
- This is a Pb – Free Device
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request

Mechanical Dimensions: In Inches / mm



DO-201AD



Technical Data
Data Sheet N0882, Rev. -

Green Products

Marking Diagram:

Where XXXXX is YYWWL



- SB = Device Type
- 5 = Forward Current (5A)
- 100 = Reverse Voltage (100V)
- L = Low V_F
- SSG = SSG
- YY = Year
- WW = Week
- L = Lot Number

Cautions : Molding resin
Epoxy resin UL:94V-0

Ordering Information:

Device	Package	Shipping
SB5100L	DO-201AD (Pb-Free)	1250 pcs / tape

For information on tape and reel specifications, including part orientation and tape sizes, please refer to our Tape and Reel Packaging Specification.

Maximum Ratings:

Characteristics	Symbol	Condition	Max.	Units
Peak Inverse Voltage	V_{RWM}	-	150	V
Max. Average Forward (per leg)	$I_{F(AV)}$	50% duty cycle @ $T_C = 145^\circ C$, rectangular wave form	5	A
Max. Peak One Cycle Non-Repetitive Surge Current (per leg)	I_{FSM}	8.3 ms, half Sine pulse	120	A



Electrical Characteristics:

Characteristics	Symbol	Condition	Max.	Units
Max. Forward Voltage Drop (per leg) *	V _{F1}	@ 1.5A, Pulse, T _J = 25 °C @ 5A, Pulse, T _J = 25 °C	0.75 0.93	V
	V _{F2}	@ 1.5A, Pulse, T _J = 125 °C @ 5A, Pulse, T _J = 125 °C	0.65 0.83	V
Max. Reverse Current at DC condition (per leg)	I _{R1}	@V _R = rated VR T _J = 25 °C	1	mA
Max. Reverse Current (per leg) *	I _{R2}	@V _R = rated VR T _J = 125 °C	7.0	mA
Max. Junction Capacitance (per leg)	C _T	@V _R = 5V, T _C = 25 °C f _{SIG} = 1MHz	200	pF
Typical Series Inductance (per leg)	L _S	Measured lead to lead 5 mm from package body	8.0	nH
Max. Voltage Rate of Change	dv/dt	-	10,000	V/us

* Pulse Width < 300µs, Duty Cycle <2%

Thermal-Mechanical Specifications:

Characteristics	Symbol	Condition	Specification	Units
Max. Junction Temperature	T _J	-	-55 to +150	°C
Max. Storage Temperature	T _{stg}	-	-55 to +150	°C
Maximum Thermal Resistance Junction to Case (per leg)	R _{θJC}	DC operation	4.5	°C/W
Approximate Weight	wt	-	1.02	g
Case Style	DO-201AD			

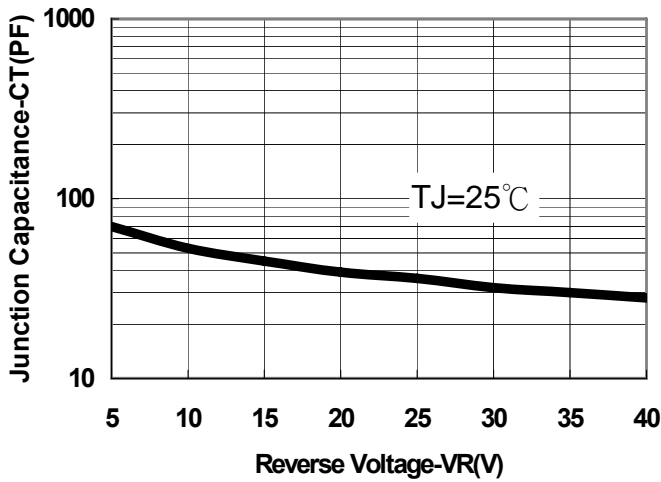


Fig.1-Typical Junction Capacitance

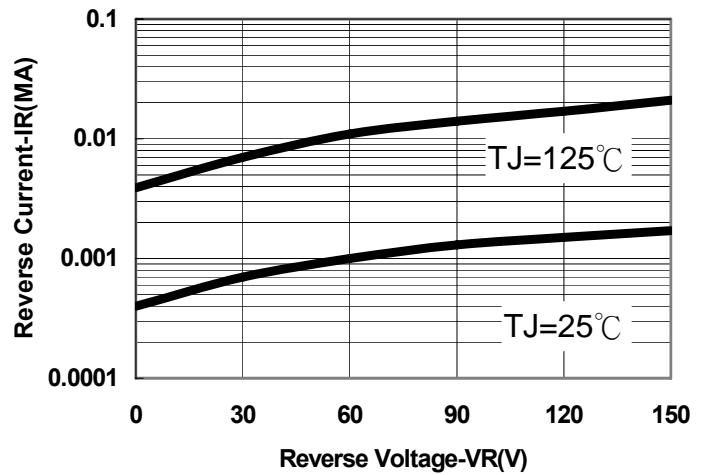


Fig.2-Typical Reverse Characteristics

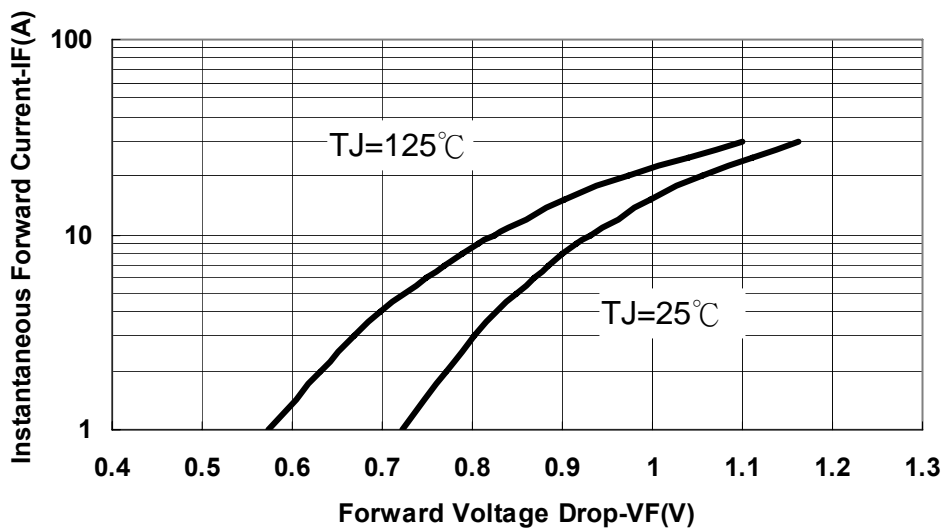


Fig.3-Typical Instantaneous Forward Voltage Characteristics



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