THE DATASHEET OF

SBL5100TA

Technical Data
Data Sheet N0096, Rev. B

Green Products

SBL5100 SCHOTTKY RECTIFIER

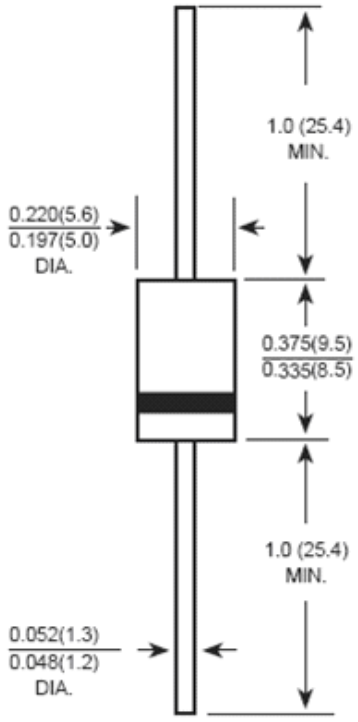
Applications:

- **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**
- **Low Forward Voltage**
- **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

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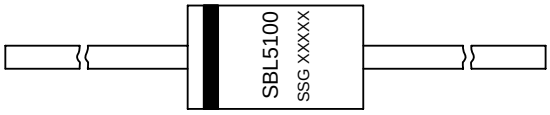
Marking Diagram:



Where XXXXX is YYWWL

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

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

Ordering Information:

Device	Package	Shipping
SBL5100	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 Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	-	100	V
Average Forward Current	$I_{F(AV)}$	50% duty cycle @TC =100℃ rectangular wave form(L=0.375")	5.0	A
Peak One Cycle Non-Repetitive Surge Current	I_{FSM}	8.3 ms, half Sine pulse	120	A

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Electrical Characteristics:

Characteristics	Symbol	Condition	Max.	Units
Forward Voltage Drop*	V_{F1}	@ 5A, Pulse, T_J = 25℃	0.83	V
Reverse Current*	I_{R1}	@V_R = rated VR T_J = 25℃	0.5	mA
	I_{R2}	@V_R = rated VR T_J = 100℃	10	mA
Typical Junction Capacitance	Cj	@V_R = 5.0 V, Tc=25℃ f_{SIG} = 1MHz	250	pF

* Pulse Width < 300μs, Duty Cycle <2%

Thermal-Mechanical Specifications:

Characteristics	Symbol	Condition	Specification	Units
Junction Temperature Range	T_J	-	-55 to +175	℃
Storage Temperature Range	T_{stg}	-	-55 to +175	℃
Typical Thermal Resistance Junction to Case	$R_{\theta JC}$	DC operation	8	℃/W
Approximate Weight	wt	-	1.02	g
Case Style	DO-201AD			

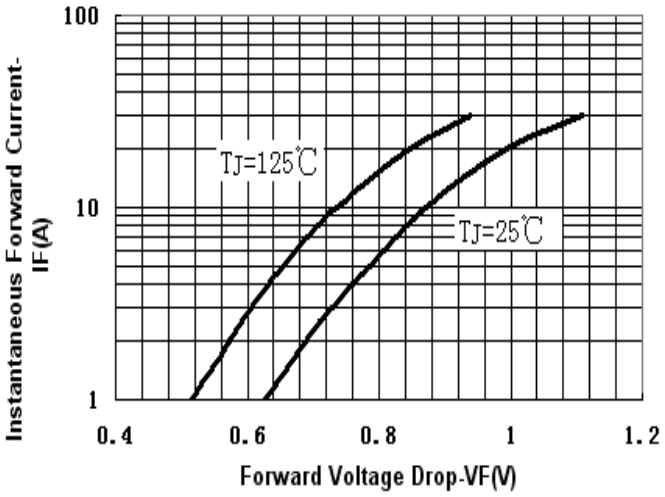

Fig.1-Typical Forward Voltage Drop Characteristics

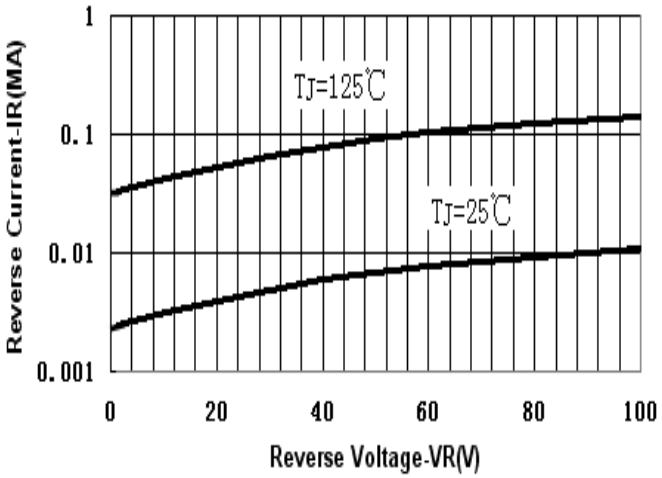

Fig.2-Typical Values Of Reverse Current Vs.Reverse Voltage

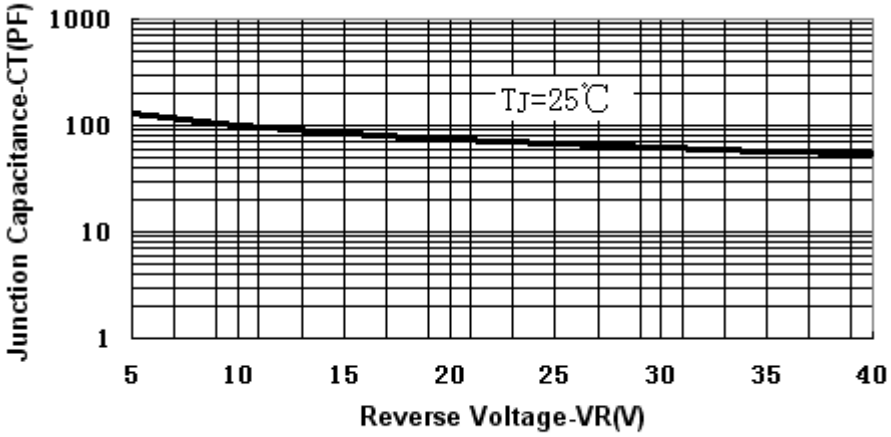

Fig.3-Typical Junction Capacitance Vs.Reverse Voltage

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