



THE DATASHEET OF SBL5100TA

SBL5100 SCHOTTKY RECTIFIER

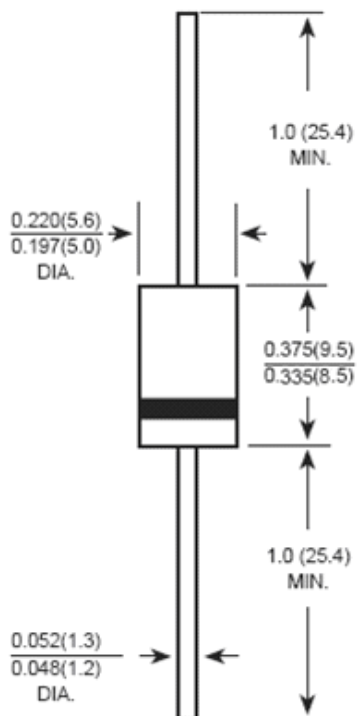
Applications:

- 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

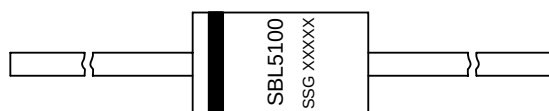
Mechanical Dimensions: In Inches / mm



DO-201AD

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	V_{RRM}	-	100	V
Working Peak Reverse Voltage	V_{RWM}			
DC Blocking Voltage	V_R			
Average Forward Current	$I_{F(AV)}$	50% duty cycle @TC =100°C 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

Electrical Characteristics:

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

* Pulse Width < 300 μs , Duty Cycle <2%

Thermal-Mechanical Specifications:

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

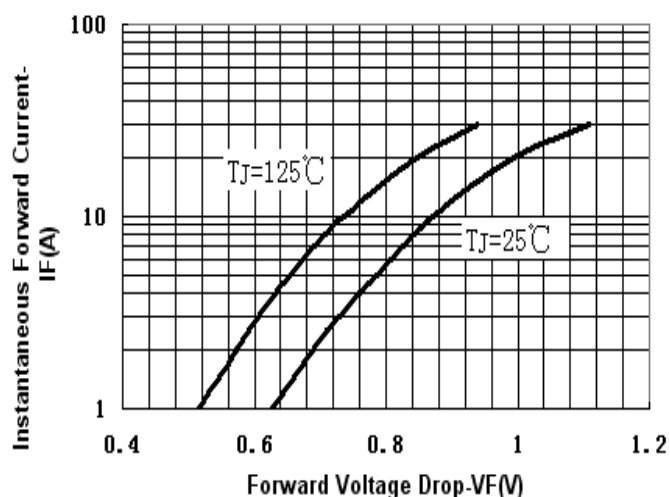


Fig.1-Typical Forward Voltage Drop Characteristics

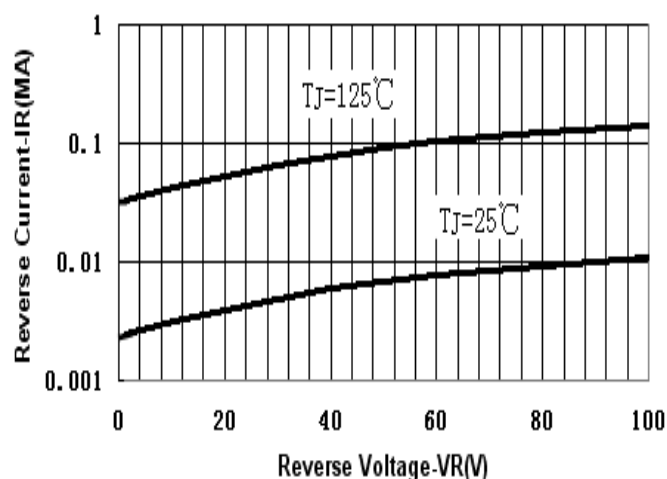


Fig.2-Typical Values Of Reverse Current Vs.Reverse Voltage

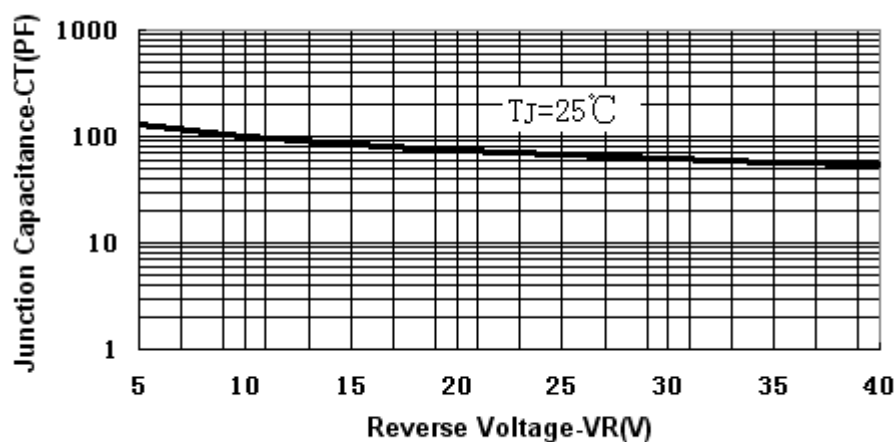


Fig.3-Typical Junction Capacitance Vs.Reverse Voltage

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