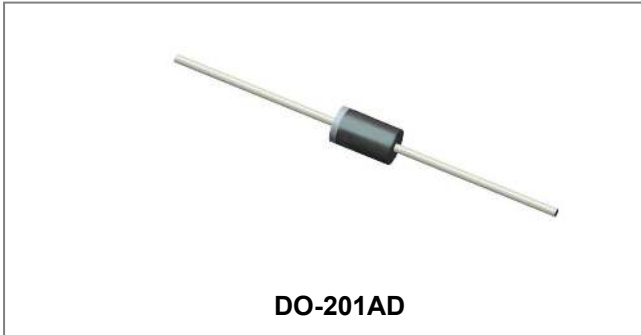


## SB2060 SCHOTTKY RECTIFIER



### 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

### Circuit Diagram



### Applications

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

### Maximum Ratings:

Characteristics	Symbol	Condition	Max.	Units
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	$V_{RRM}$ $V_{RWM}$ $V_R$	-	60	V
Average Rectified Forward Current	$I_{F(AV)}$	50% duty cycle @ $T_C=135^\circ\text{C}$ , rectangular wave form	20	A
Peak One Cycle Non-Repetitive Surge Current	$I_{FSM}$	8.3 ms, half Sine pulse, $T_C=25^\circ\text{C}$	300	A

### Electrical Characteristics:

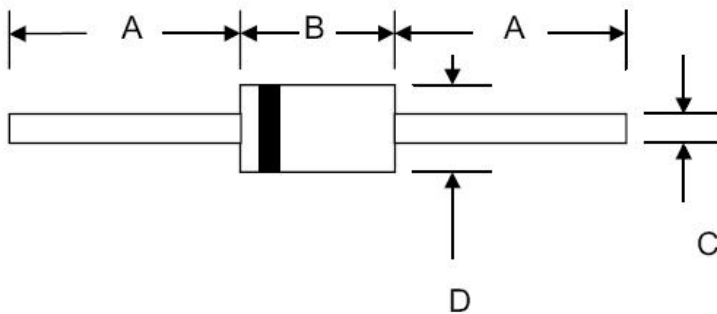
Characteristics	Symbol	Condition	Typ.	Max.	Units
Forward Voltage Drop*	$V_{F1}$	@ 20A, Pulse, $T_J = 25^\circ\text{C}$	-	0.70	V
	$V_{F2}$	@ 20A, Pulse, $T_J = 125^\circ\text{C}$	-	0.60	V
Reverse Current*	$I_{R1}$	@ $V_R = \text{Rated } V_R$ , Pulse, $T_J = 25^\circ\text{C}$	-	1.0	mA
	$I_{R2}$	@ $V_R = \text{Rated } V_R$ , Pulse, $T_J = 125^\circ\text{C}$	-	40	mA
Voltage Rate of Change	$dv/dt$	-	-	10,000	V/us

\* Pulse width < 300  $\mu\text{s}$ , duty cycle < 2%

**Thermal-Mechanical Specifications:**

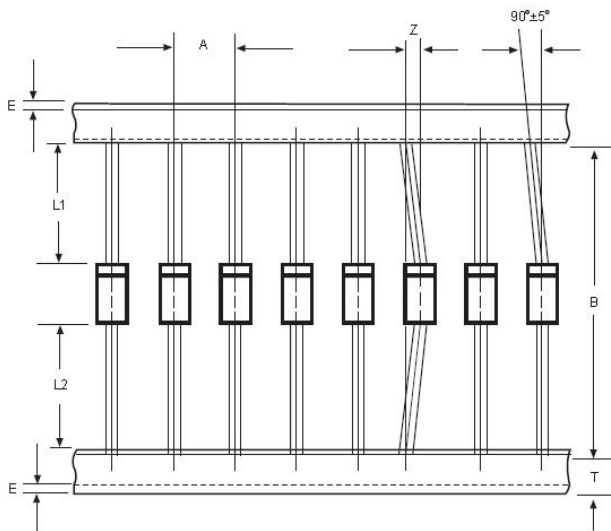
Characteristics	Symbol	Condition	Specification	Units
Junction Temperature	$T_J$	-	-55 to +150	°C
Storage Temperature	$T_{stg}$	-	-55 to +150	°C
Typical Thermal Resistance Junction to Case	$R_{\theta JC}$	DC operation	2	°C/W
Approximate Weight	wt	-	1.02	g

**Mechanical Dimensions DO-201AD**



SYMBOL	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	25.4	-	1.000	-
B	8.50	9.50	0.335	0.374
C	1.2	1.3	0.048	0.052
D	5.0	5.6	0.197	0.220

**Carrier Tape Specification DO-201AD**



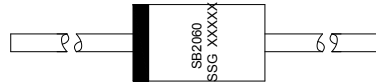
SYMBOL	Millimeters	
	Min.	Max.
A	9.50	10.50
B	50.9	53.9
Z	-	1.20
T	5.60	6.40
E	-	0.80
IL1-L2I	-	1.0

**Ordering Information**

Device	Package	Shipping
SB2060	DO-201AD (Pb-Free)	1250pcs / tape

For information on tape and reel specifications, including part orientation and tape sizes, please refer to our tape and reel packaging specification.

**Marking Diagram**



Where XXXXX is YYWWL

SB2060 = Part Name  
SSG = SSG  
YY = Year  
WW = Week  
L = Lot Number

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

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