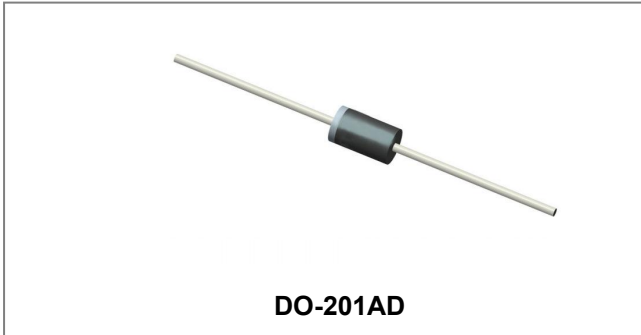


SB2060 SCHOTTKY RECTIFIER



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:

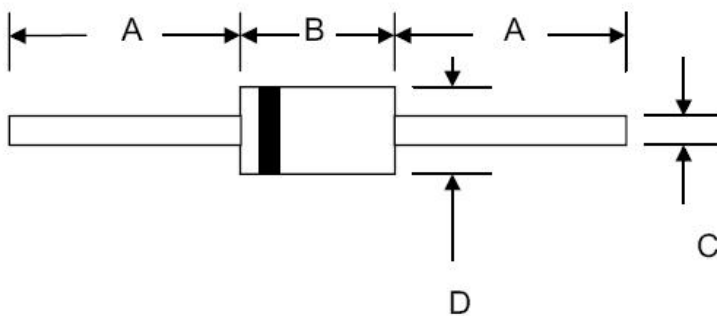
| Characteristics | Symbol | Condition | Typ. | Max. | Units |
|------------------------|----------|--|------|--------|-------|
| Forward Voltage Drop* | V_{F1} | @ 20A, Pulse, $T_J = 25^\circ\text{C}$ | - | 0.70 | V |
| | V_{F2} | @ 20A, Pulse, $T_J = 125^\circ\text{C}$ | - | 0.60 | V |
| Reverse Current* | 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 μs , duty cycle < 2%

Thermal-Mechanical Specifications:

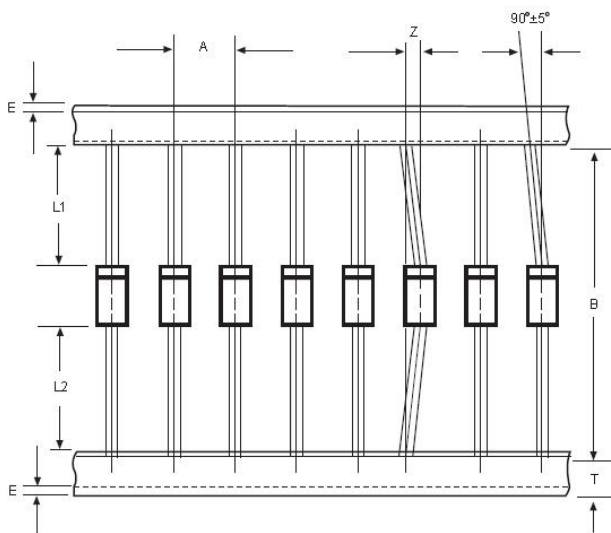
| Characteristics | Symbol | Condition | Specification | Units |
|---|-----------------|--------------|---------------|-------|
| Junction Temperature | T_J | - | -55 to +150 | °C |
| Storage Temperature | T_{stg} | - | -55 to +150 | °C |
| Typical Thermal Resistance Junction to Case | $R_{\theta JC}$ | 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



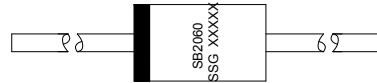
| SYMBOL | Millimeters | |
|---------|-------------|-------|
| | Min. | Max. |
| A | 9.50 | 10.50 |
| B | 50.9 | 53.9 |
| Z | - | 1.20 |
| T | 5.60 | 6.40 |
| E | - | 0.80 |
| IL1-L2I | - | 1.0 |

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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