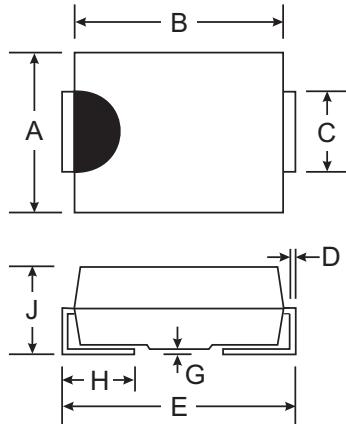


Features

- Schottky Barrier Chip
- Guard Ring Die Construction for Transient Protection
- Ideally Suited for Automatic Assembly
- Low Power Loss, High Efficiency
- Surge Overload Rating to 50A Peak
- For Use in Low Voltage, High Frequency Inverters, Free Wheeling, and Polarity Protection Application
- High Temperature Soldering: 260°C/10 Second at Terminal
- Lead Free Finish/RoHS Compliant (Note 3)

Mechanical Data

- Case: SMB
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0
- Terminals: Lead Free Plating (Matte Tin Finish). Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band or Cathode Notch
- Marking: B1100LB or B110LB and Date Code
- Weight: 0.093 grams (approx.)



| SMB | | |
|----------------------|------|------|
| Dim | Min | Max |
| A | 3.30 | 3.94 |
| B | 4.06 | 4.57 |
| C | 1.96 | 2.21 |
| D | 0.15 | 0.31 |
| E | 5.00 | 5.59 |
| G | 0.10 | 0.20 |
| H | 0.76 | 1.52 |
| J | 2.00 | 2.40 |
| All Dimensions in mm | | |

Maximum Ratings and Electrical Characteristics

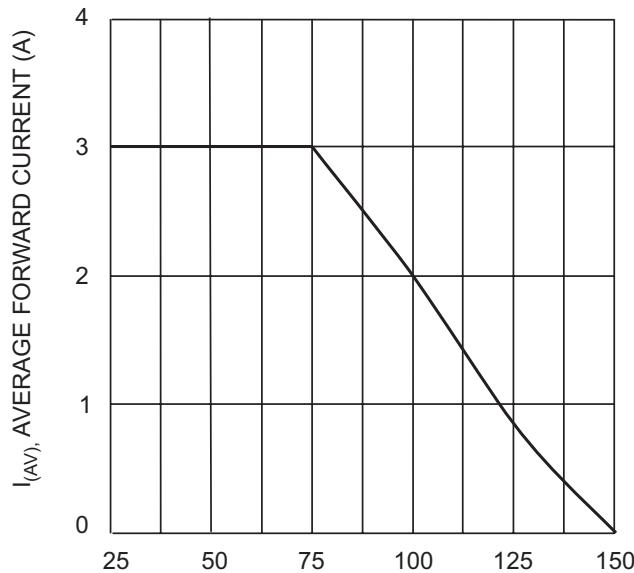
@ $T_A = 25^\circ\text{C}$ unless otherwise specified

Single phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

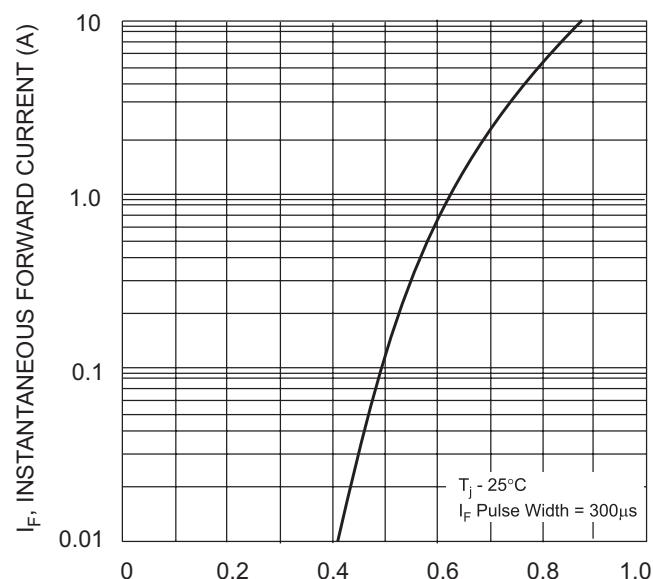
| Characteristic | Symbol | Value | Unit |
|--|---------------------------------|-------------|------|
| Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage @ $I_R = 0.5\text{mA}$ | V_{RRM} V_{RWM} V_R | 100 | V |
| RMS Reverse Voltage | $V_{R(\text{RMS})}$ | 70 | V |
| Average Rectified Output Current @ $T_T = 120^\circ\text{C}$ @ $T_T = 100^\circ\text{C}$ | I_O | 1.0 2.0 | A |
| Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave Superimposed on Rated Load (JEDEC Method) | I_{FSM} | 50 | A |
| Forward Voltage @ $I_F = 1.0\text{A}$, $T_A = 25^\circ\text{C}$ | V_{FM} | 0.75 | V |
| Peak Reverse Current @ $T_A = 25^\circ\text{C}$ at Rated DC Blocking Voltage @ $T_A = 100^\circ\text{C}$ | I_{RM} | 0.5 5.0 | mA |
| Typical Total Capacitance (Note 2) | C_T | 100 | pF |
| Typical Thermal Resistance Junction to Terminal (Note 1) | $R_{\theta JT}$ | 22 | °C/W |
| Operating and Storage Temperature Range | T_j, T_{STG} | -65 to +150 | °C |

Notes:

1. Valid provided that terminals are kept at ambient temperature.
2. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
3. RoHS revision 13.2.2003. Glass and High Temperature Solder Exemptions Applied, see EU Directive Annex Notes 5 and 7.



T_T, TERMINAL TEMPERATURE (°C)
Fig. 1 Forward Current Derating Curve



V_F, INSTANTANEOUS FORWARD VOLTAGE (V)
Fig. 2 Typical Forward Characteristics

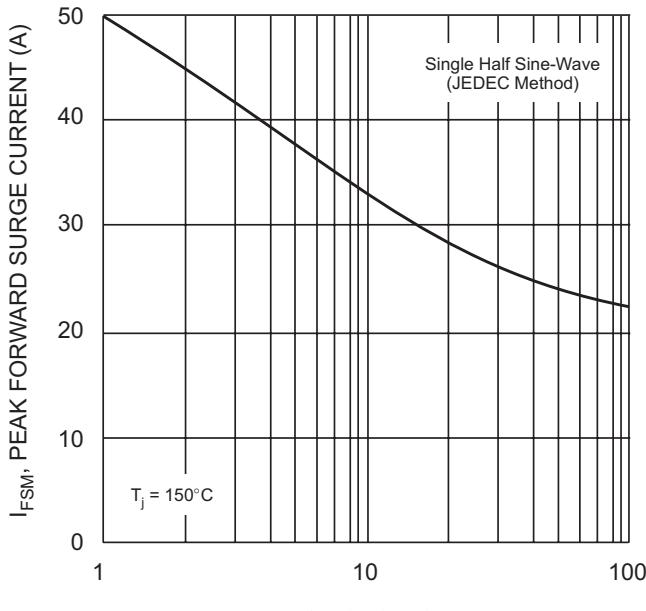
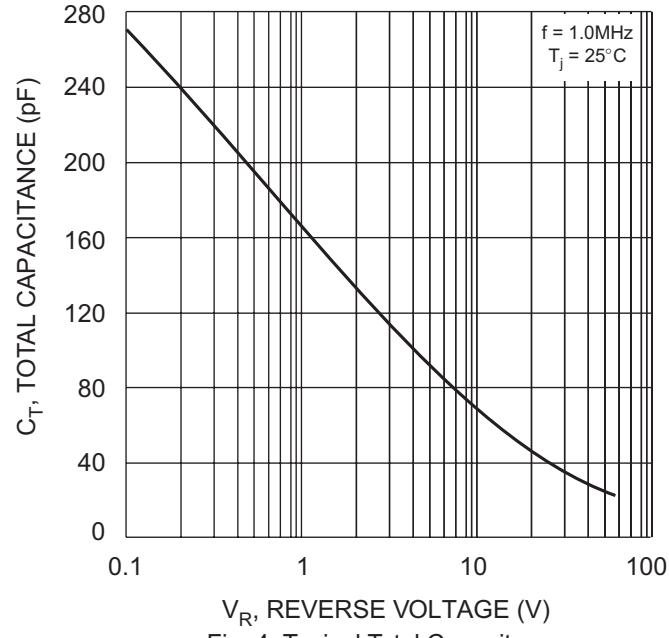


Fig. 3 Max Non-Repetitive Peak Forward Surge Current

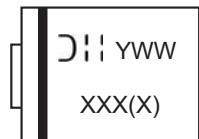


V_R, REVERSE VOLTAGE (V)
Fig. 4 Typical Total Capacitance

Ordering Information (Note 4)

| Device | Packaging | Shipping |
|--------------|-----------|------------------|
| B1100LB-13-F | SMB | 3000/Tape & Reel |

Notes: 4. For Packaging Details, go to our website at <http://www.diodes.com/datasheets/ap02007.pdf>.



XXX = Product type marking code, ex. B110LB
 XXXX = Product type marking code, ex. B1100LB
 DII = Manufacturers' code marking
 YWW = Date code marking
 Y = Last digit of year ex: 2 for 2002
 WW = Week code 01 to 52

Note: Device has a cathode band (as shown above) and may also have a cathode notch (as shown on Page 1).

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