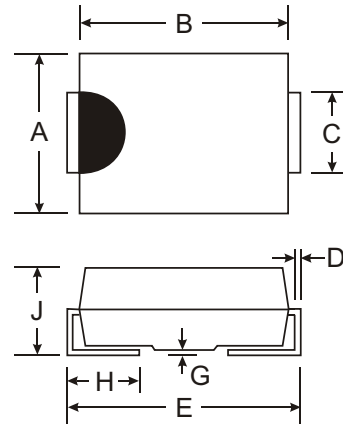


### Features

- 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
- Plastic Material: UL Flammability Classification Rating 94V-0



| 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 | 2.62 |
| All Dimensions in mm |      |      |

### Mechanical Data

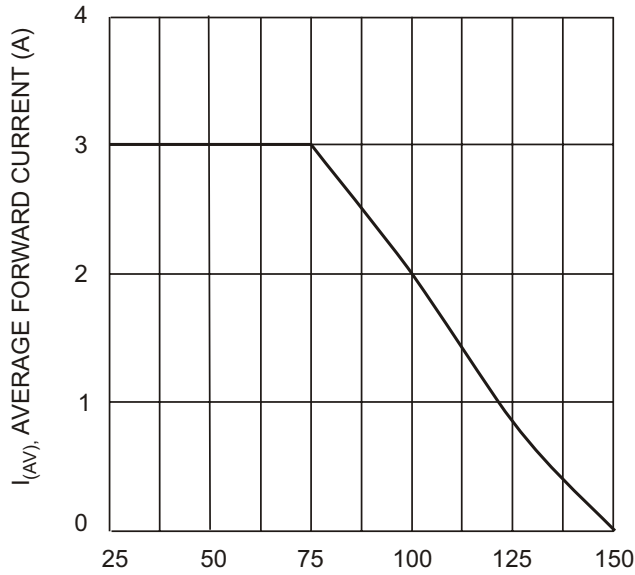
- Case: SMB, Molded Plastic
- Terminals: Solder Plated Terminal - Solderable per MIL-STD-202, Method 208
- Also Available in Lead Free Plating (Matte Tin Finish). Please See Ordering Information, Note 4, on Page 2
- Polarity: Cathode Band or Cathode Notch
- Marking: B110LB and Date Code
- Weight: 0.093 grams (approx.)

### Maximum Ratings and Electrical Characteristics @ T<sub>A</sub> = 25°C unless otherwise specified

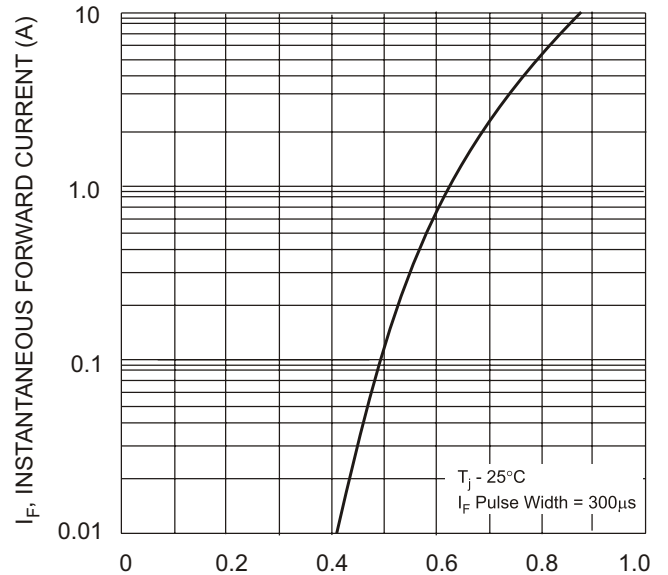
Single phase, half wave, 60Hz, resistive or inductive load.  
For capacitive load, derate current by 20%.

| Characteristic  | Symbol   | Value       | Unit |
|---|--|-------------|------|
| Peak Repetitive Reverse Voltage<br>Working Peak Reverse Voltage<br>DC Blocking Voltage @ I <sub>R</sub> = 0.5mA       | V <sub>RRM</sub><br>V <sub>RWM</sub><br>V <sub>R</sub> | 100         | V    |
| RMS Reverse Voltage   | V <sub>R(RMS)</sub>                                    | 70          | V    |
| Average Rectified Output Current @ T <sub>T</sub> = 120°C<br>@ T <sub>T</sub> = 100°C                                 | I <sub>O</sub>   | 1.0<br>2.0  | A    |
| Non-Repetitive Peak Forward Surge Current<br>8.3ms Single half sine-wave Superimposed on Rated Load<br>(JEDEC Method) | I <sub>FSM</sub>                                       | 50          | A    |
| Forward Voltage @ I <sub>F</sub> = 1.0A, T <sub>A</sub> = 25°C  | V <sub>FM</sub>  | 0.75        | V    |
| Peak Reverse Current @ T <sub>A</sub> = 25°C<br>at Rated DC Blocking Voltage @ T <sub>A</sub> = 100°C                 | I <sub>RM</sub>  | 0.5<br>5.0  | mA   |
| Typical Total Capacitance (Note 2)  | C <sub>T</sub>   | 100         | pF   |
| Typical Thermal Resistance Junction to Terminal (Note 1)  | R <sub>θJT</sub>                                       | 22          | °C/W |
| Operating and Storage Temperature Range   | T <sub>J</sub> , T <sub>STG</sub>                      | -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.



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



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

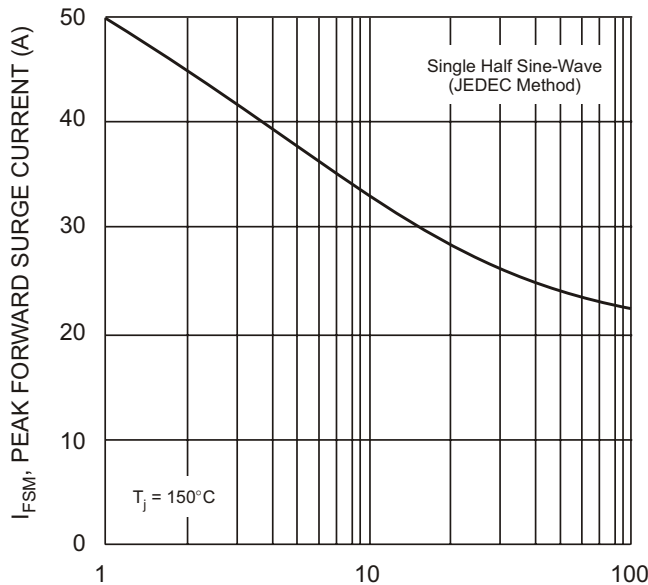
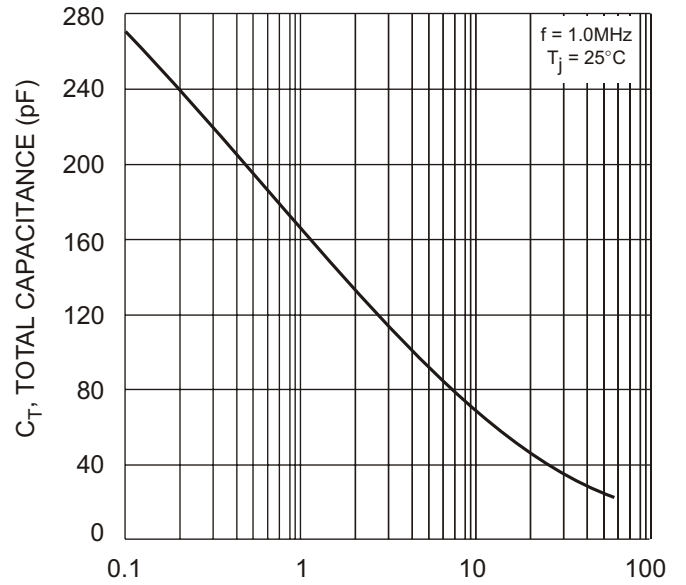


Fig. 3 Max Non-Repetitive Peak Forward Surge Current

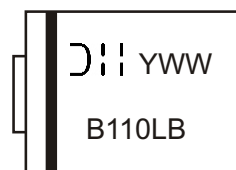


$V_R$ , REVERSE VOLTAGE (V)  
Fig. 4 Typical Total Capacitance

**Ordering Information** (Note 3 & 4)

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

- Notes: 3. For Packaging Details, go to our website at <http://www.diodes.com/datasheets/ap02007.pdf>.  
4. For lead free terminal plating part number, please add "-F" suffix to part number above. Example: B1100LB-13-F.



⏏ = 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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