

Features

- Guard Ring Die Construction for Transient Protection
- Ideally Suited for Automated 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 1)**
- **Green Molding Compound (No Halogen and Antimony) (Note 2)**

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 (3)
- Polarity: Cathode Band or Cathode Notch
- Weight: 0.093 grams (approximate)



Top View



Bottom View

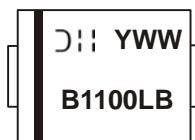
Ordering Information (Note 3)

Part Number	Case	Packaging
B1100LB-13-F	SMB	3000/Tape & Reel

Notes:

1. EU Directive 2002/95/EC (RoHS). All applicable RoHS exemptions applied, see EU Directive 2002/95/EC Annex Notes.
2. Product manufactured with Data Code 0924 (week 24, 2009) and newer are built with Green Molding Compound.
3. For packaging details, go to our website at <http://www.diodes.com>.

Marking Information



B1100LB = Product type marking code
 DII = Manufacturers' code marking
 YWW = Date code marking
 Y = Last digit of year (ex: 02 for 2002)
 WW = Week code (01 to 53)

Note: Device has a cathode band and may also have a cathode notch.

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

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

Characteristic	Symbol	Value	Unit
Peak Repetitive Reverse Voltage	V_{RRM}		
Working Peak Reverse Voltage	V_{RWM}	100	V
DC Blocking Voltage @ $I_R = 0.5\text{mA}$	V_R		
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	I_{FSM}	50	A

Thermal Characteristics

Characteristic	Symbol	Value	Unit
Typical Thermal Resistance Junction to Terminal (Note 4)	$R_{\theta JT}$	22	°C/W
Operating and Storage Temperature Range (Note 5)	T_J, T_{STG}	-65 to +175	°C

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

Characteristic	Symbol	Min	Typ	Max	Unit	Test Condition
Forward Voltage Drop	V_F	-	-	0.75	V	$I_F = 1.0\text{A}, T_A = 25^\circ\text{C}$
Leakage Current (Note 6)	I_R	-	-	0.5 5.0	mA	$V_R = 100\text{V}, T_A = 25^\circ\text{C}$ $V_R = 100\text{V}, T_A = 100^\circ\text{C}$
Total Capacitance	C_T	-	-	100	pF	$V_R = 4\text{V}, f = 1\text{MHz}$

Notes:
 4. Valid provided that terminals are kept at ambient temperature.
 5. The heat generated must be less than the thermal conductivity from Junction-to-Ambient: $dP_D/dT_J < 1/R_{\theta JA}$.
 6. Short duration pulse test used to minimize self-heating effect.

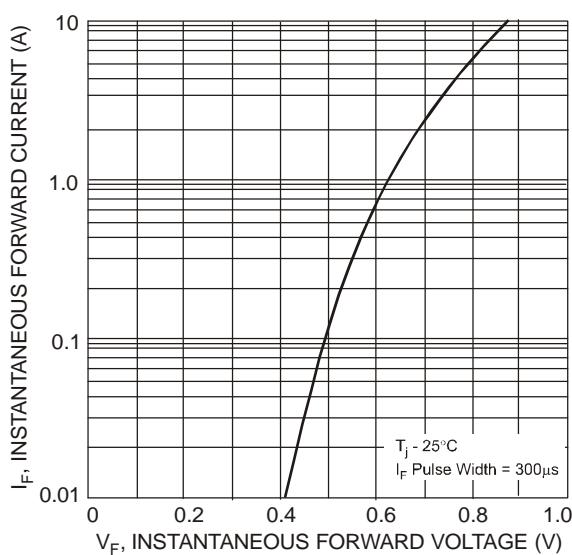


Fig. 1 Typical Forward Characteristics

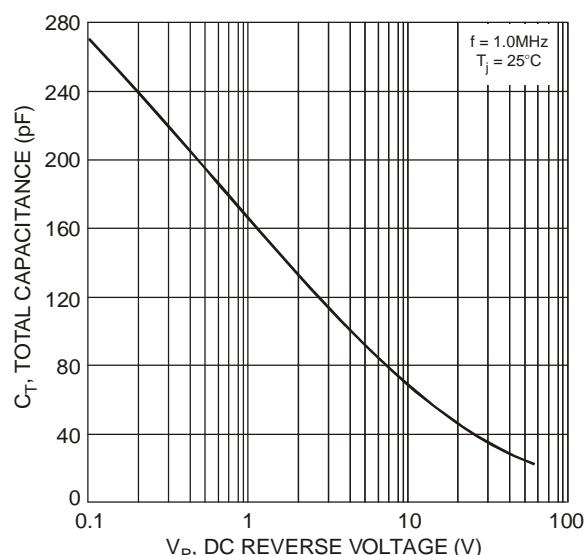


Fig. 2 Total Capacitance vs. Reverse Voltage

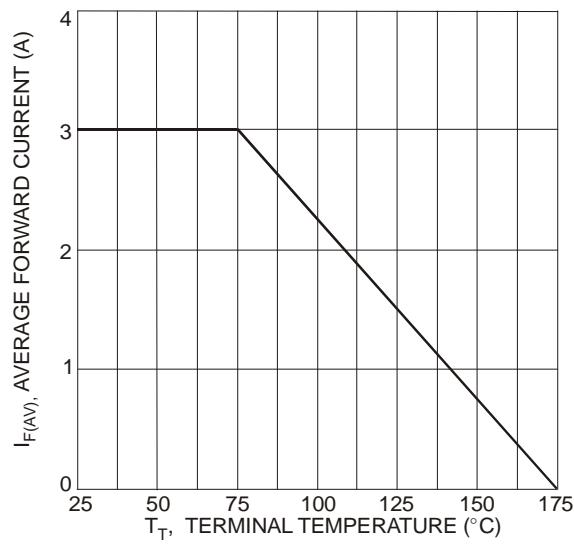


Fig. 3 Forward Current Derating Curve

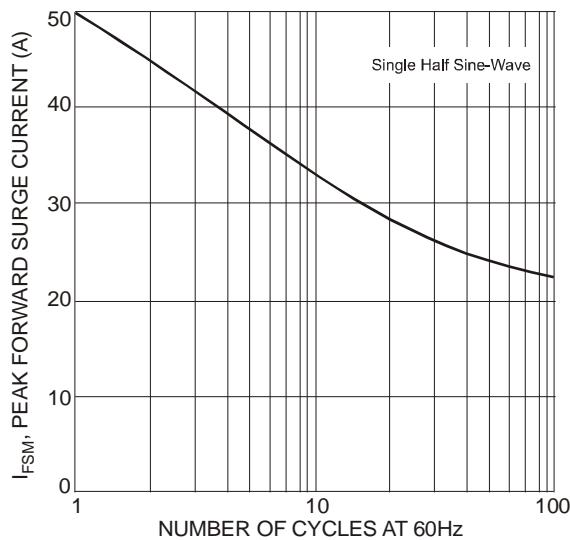
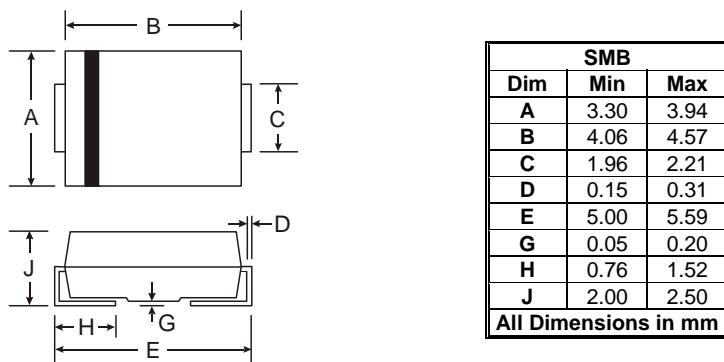
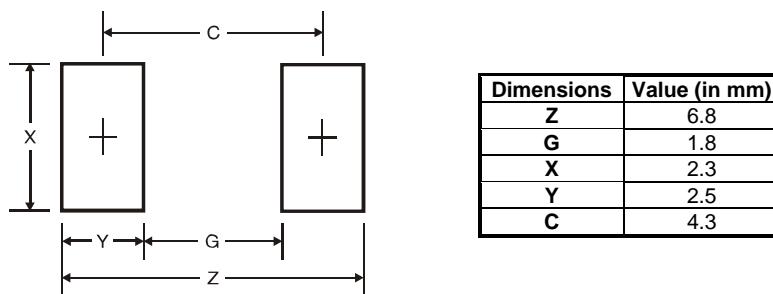


Fig. 4 Max Non-Repetitive Peak Forward Surge Current

Package Outline Dimensions



Suggested Pad Layout



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