



B130LB

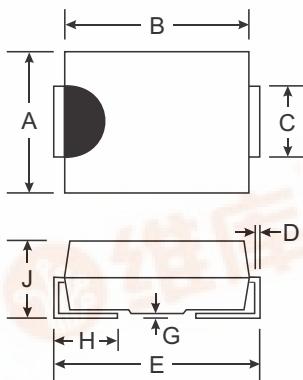
## 1.0A SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

## Features

Guard Ring Die Construction for  
Transient Protection  
Ideally Suited for Automatic Assembly  
Low Power Loss, High Efficiency  
Surge Overload Rating to 40A 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 2)

## Mechanical Data

Case: SMB  
Case Material: UL Flammability Classification Rating 94V-0  
Moisture Sensitivity: Level 1 per J-STD-020C  
Terminals: Lead Free Plating (Matte Tin Finish).  
Solderable per MIL-STD-202, Method 208 (e3)  
Polarity: Cathode Band or Cathode Notch  
Marking Information: See page 3  
Ordering Information: See page 3  
Weight: 0.093 grams (approximate)



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	1.27
J	2.00	2.40

All Dimensions in mm

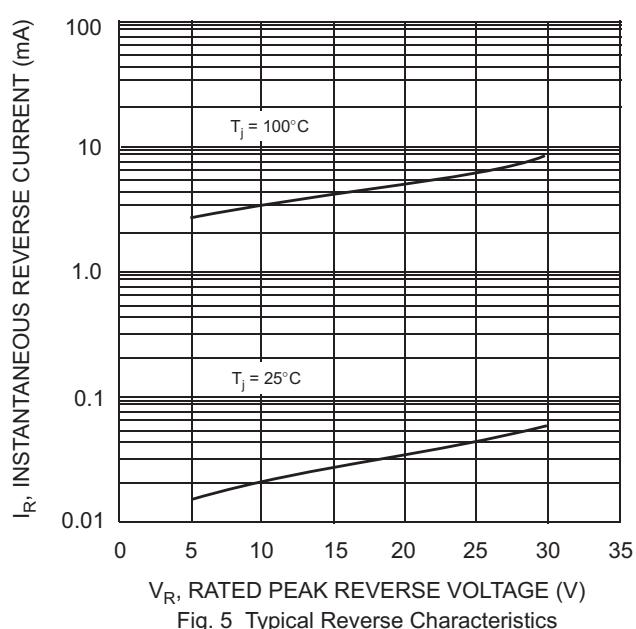
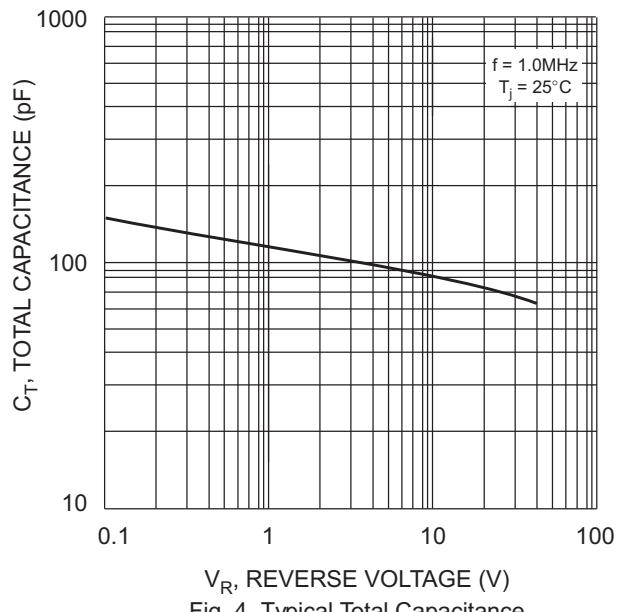
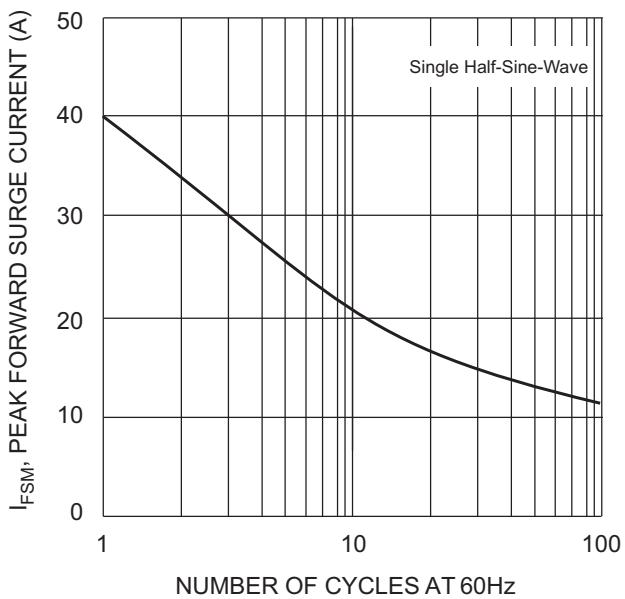
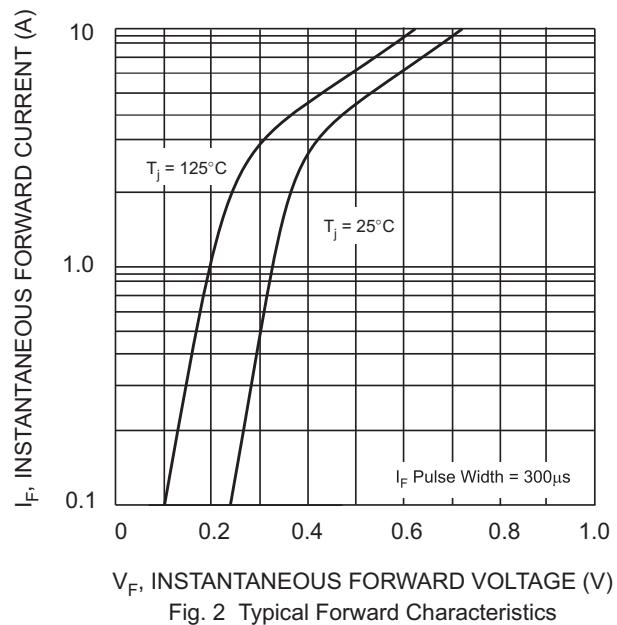
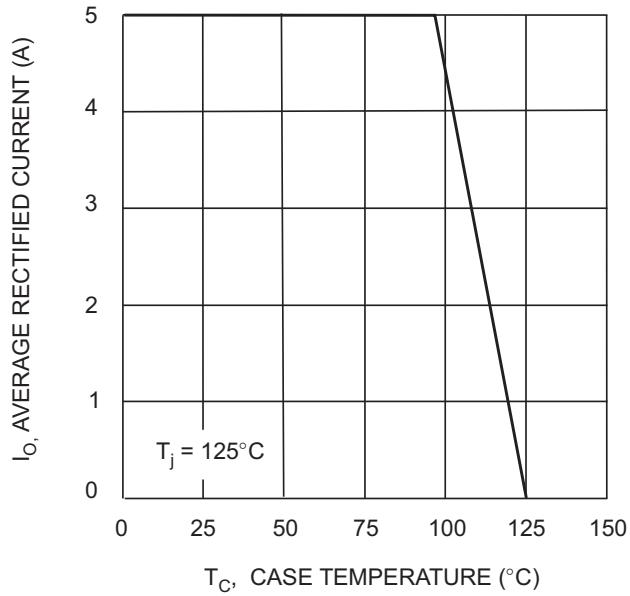
Maximum Ratings and Electrical Characteristics @  $T_A = 25$  C unless otherwise specified

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

Characteristic	Symbol	Value	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	$V_{RRM}$ $V_{RWM}$ $V_R$	30	V
RMS Reverse Voltage	$V_{R(RMS)}$	21	V
Average Rectified Output Current @ $T_T = 120$ C @ $T_T = 110$ C	$I_O$	1.0 2.0	A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave Superimposed on Rated Load	$I_{FSM}$	40	A
Forward Voltage @ $I_F = 1.0A$ @ $I_F = 2.0A$	$V_{FM}$	0.395 0.445	V
Peak Reverse Current at Rated DC Blocking Voltage @ $T_A = 25$ C @ $T_A = 100$ C	$I_{RM}$	1.0 20	mA
Typical Total Capacitance (Note 1)	$C_T$	90	pF
Typical Thermal Resistance Junction to Terminal	$R_{JT}$	12	C/W
Operating and Storage Temperature Range	$T_j, T_{STG}$	-55 to +125	C

Notes: 1. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.

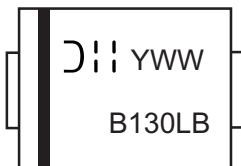
2. RoHS revision 13.2.2003. High Temperature Solder Exemption Applied, see EU Directive Annex Note 7.



**Ordering Information** (Note 3)

Device	Packaging	Shipping
B130LB-13-F	SMB	3000/Tape & Reel

Notes: 3. For Packaging Details, go to our website at <http://www.diodes.com/datasheets/ap02007.pdf>.

**Marking Information**

B130LB = Product type marking code  
DII = Manufacturers' code marking  
YWW = Date code marking  
Y = Last digit of year ex: 2 for 2002  
WW = Week code 01 to 52  
Band = Cathode

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