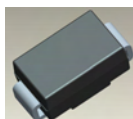


1.0A SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER
Features

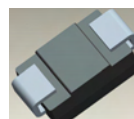
- Guard Ring Die Construction for Transient Protection
- Ideally Suited for Automated Assembly
- Low Power Loss, High Efficiency
- Surge Overload Rating to 40A Peak
- For Use in Low Voltage, High Frequency Inverters, Free Wheeling, and Polarity Protection Application
- High Temperature Soldering: 260°C/10 Second at Terminal
- **Lead Free Finish/RoHS Compliant (Note 1)**

Mechanical Data

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



Top View



Bottom View

Maximum Ratings @T_A = 25°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}	30	V
Working Peak Reverse Voltage	V _{RWM}		
DC Blocking Voltage	V _R		
RMS Reverse Voltage	V _{R(RMS)}	21	V
Average Rectified Output Current	I _O	1.0	A
@ T _T = 120°C		2.0	
Non-Repetitive Peak Forward Surge Current	I _{FSM}	40	A
8.3ms Single half sine-wave Superimposed on Rated Load			

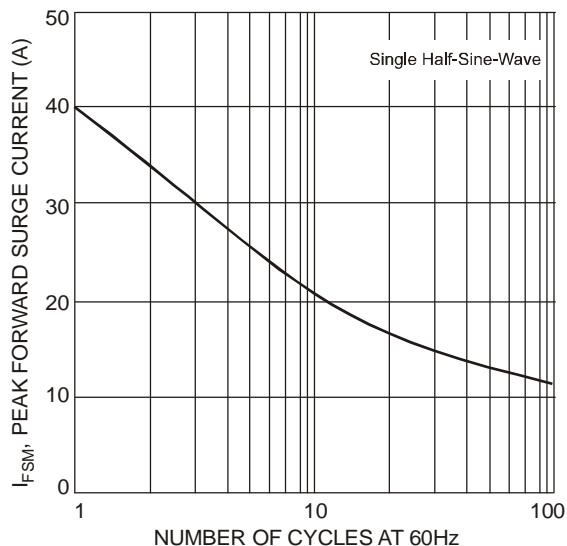
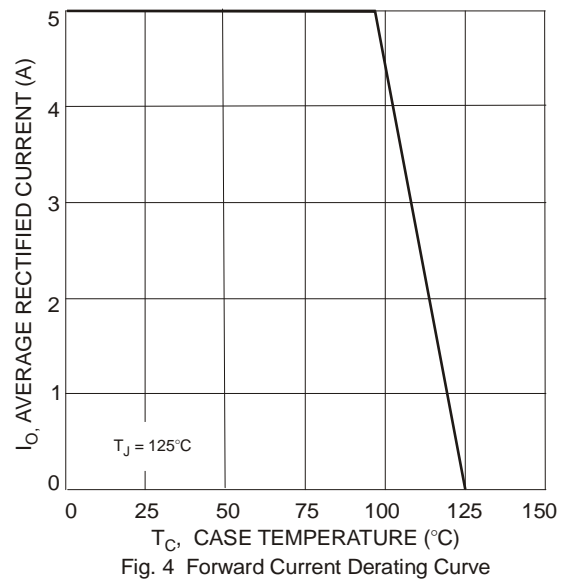
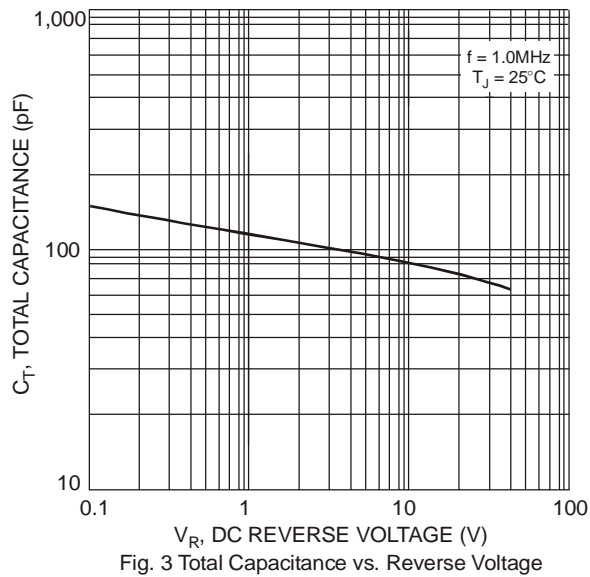
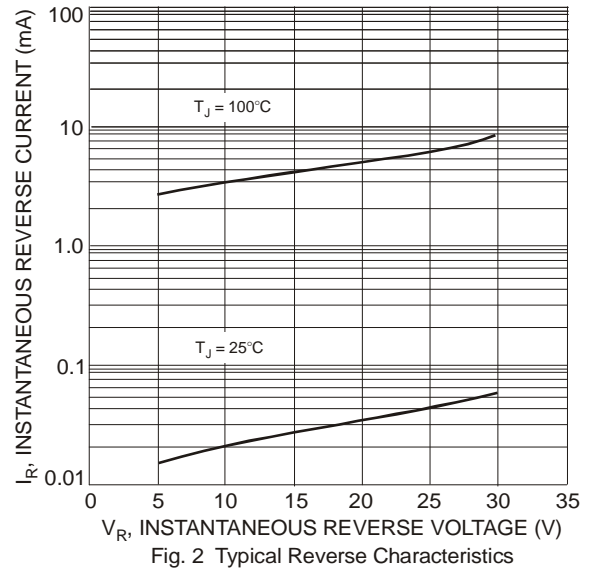
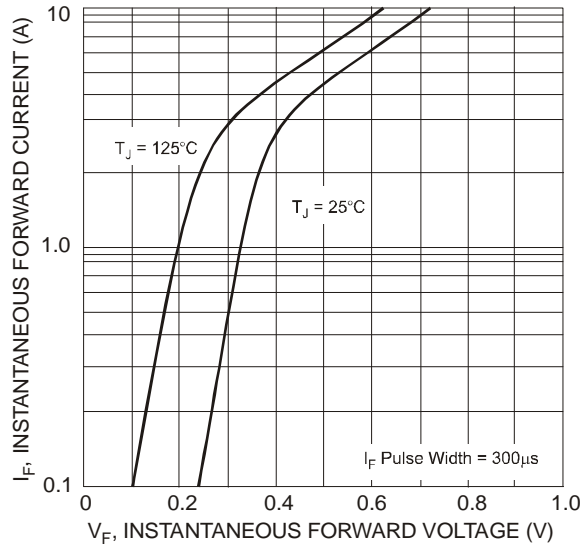
Thermal Characteristics

Characteristic	Symbol	Value	Unit
Typical Thermal Resistance Junction to Terminal	R _{θJT}	12	°C/W
Operating and Storage Temperature Range	T _J , T _{STG}	-55 to +125	°C

Electrical Characteristics @T_A = 25°C unless otherwise specified

Characteristic	Symbol	Min	Typ	Max	Unit	Test Condition
Forward Voltage Drop	V _F	-	-	0.395 0.445	V	I _F = 1.0A, T _A = 25°C I _F = 2.0A, T _A = 25°C
Leakage Current (Note 2)	I _R	-	-	1.0 20	mA	V _R = 30V, T _A = 25°C V _R = 30V, T _A = 100°C
Total Capacitance	C _T	-	-	90	pF	V _R = 4V, f = 1MHz

- Notes:
1. EU Directive 2002/95/EC (RoHS). All applicable RoHS exemptions applied, see *EU Directive 2002/95/EC Annex Notes*.
 2. Short duration pulse test used to minimize self-heating effect.

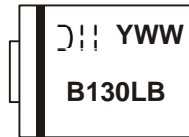


Ordering Information (Note 3)

Part Number	Case	Packaging
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

YWW = Manufacturers' code marking

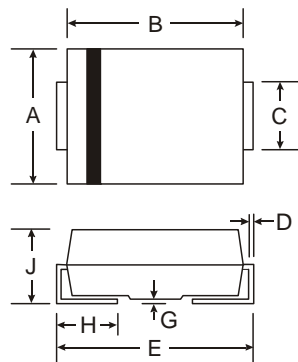
YWW = Date code marking

Y = Last digit of year ex: 2 for 2002

WW = Week code 01 to 52

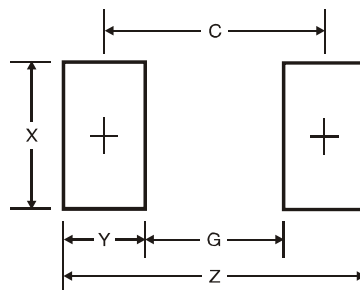
Band = Cathode

Package Outline Dimensions



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	0.05	0.20
H	0.76	1.52
J	2.00	2.62
All Dimensions in mm		

Suggested Pad Layout



Dimensions	Value (in mm)
Z	6.7
G	1.8
X	2.3
Y	2.5
C	4.3

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