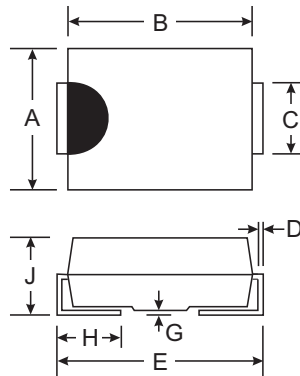


Features

- Low Forward Voltage Drop
- Guard Ring Die Construction for Transient Protection
- Ideally Suited for Automatic Assembly
- Low Power Loss, High Efficiency
- **Lead Free Finish/RoHS Version (Note 3)**

Mechanical Data

- Case: SMA
- Case Material: Molded Plastic. 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
- Polarity: Cathode Band or Cathode Notch
- Marking: B130L
- Weight: 0.064 grams (approximate)



SMA		
Dim	Min	Max
A	2.29	2.92
B	4.00	4.60
C	1.27	1.63
D	0.15	0.31
E	4.80	5.59
G	0.10	0.20
H	0.76	1.52
J	2.01	2.30
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	B130L	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage @ I _R = 1mA Blocking Voltage	V _{RRM} V _{RWM} V _R	30	V
RMS Reverse Voltage	V _{R(RMS)}	21	V
Average Rectified Output Current @ T _T = 105°C	I _O	1.0	A
Peak Repetitive Forward Current (Note 2)	I _{FRM}	2.0	A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave Superimposed on Rated Load (JEDEC Method)	I _{FSM}	25	A
Forward Voltage @ I _F = 1.0A, T _J = 25°C @ I _F = 2.0A, T _J = 25°C @ I _F = 1.0A, T _J = 100°C @ I _F = 2.0A, T _J = 100°C	V _{FM}	0.41 0.47 0.35 0.43	V
Peak Reverse Current @ V _R = 15V, T _A = 25°C @ V _R = 30V, T _A = 25°C @ V _R = 15V, T _A = 100°C @ V _R = 30V, T _A = 100°C	I _{RM}	0.4 1.0 12 25	mA
Typical Junction Capacitance (Note 1)	C _j	110	pF
Typical Thermal Resistance Junction to Terminal	R _{θJT}	27	K/W
Operating Temperature Range	T _j	-55 to +125	°C
Storage Temperature Range	T _{STG}	-55 to +150	°C

- Notes: 1. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
2. At Rated V_R, Square Wave, 25KHz, T_C = 40°C.
3. RoHS revision 13.2.2003. Glass and High Temperature Solder Exemptions Applied, see EU Directive Annex Notes 5 and 7.

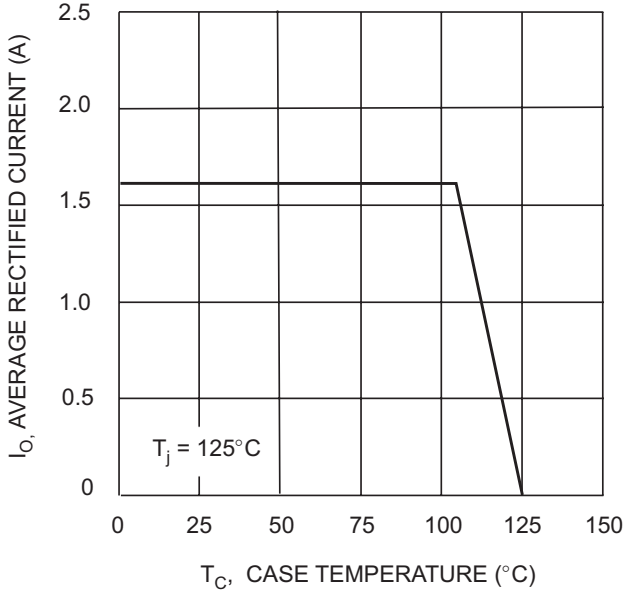


Fig. 1 Forward Current Derating Curve

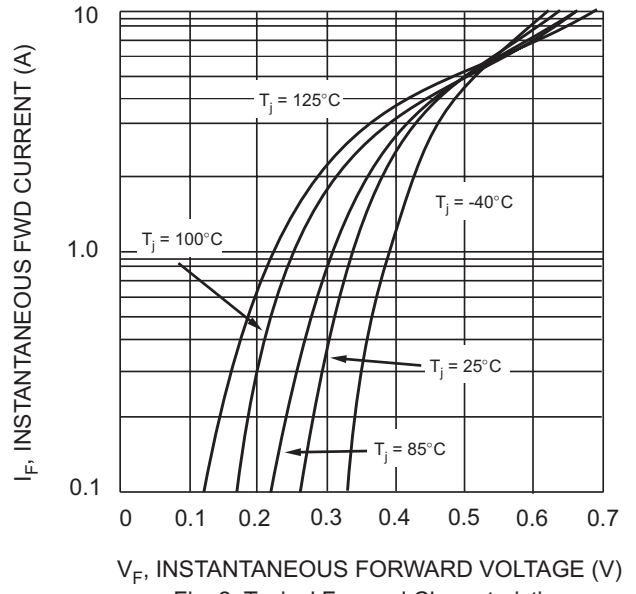


Fig. 2 Typical Forward Characteristics

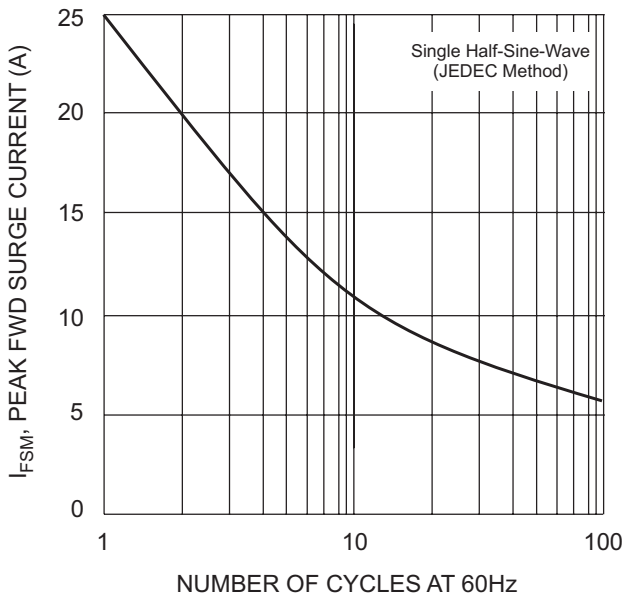


Fig. 3 Max Non-Repetitive Peak Fwd Surge Current

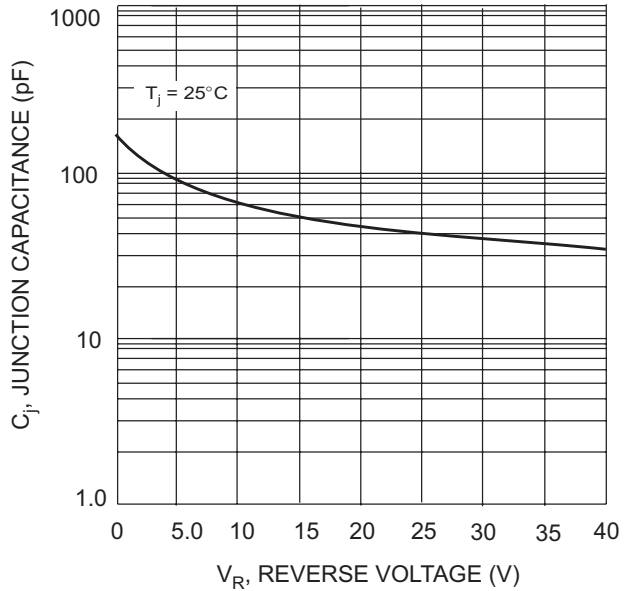


Fig. 4 Typical Junction Capacitance

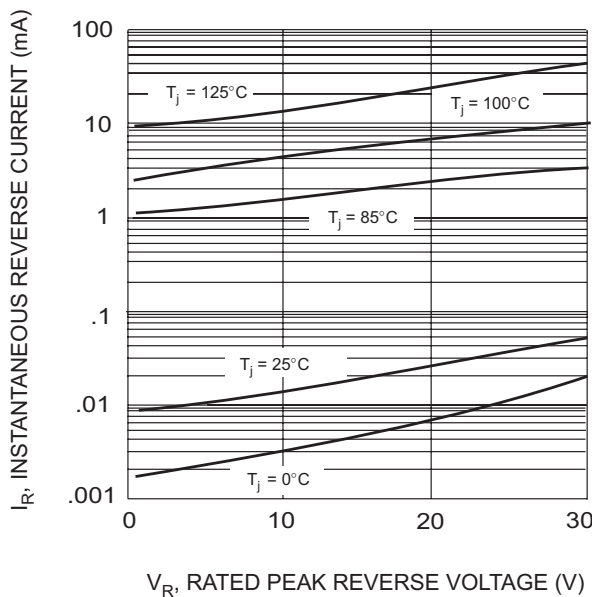


Fig. 5 Typical Reverse Characteristics



Ordering Information (Note 4)

Device	Packaging	Shipping
B130L-13-F	SMA	5000/Tape & Reel

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

IMPORTANT NOTICE

Diodes, Inc. and its subsidiaries reserve the right to make changes without further notice to any product herein to make corrections, modifications, enhancements, improvements, or other changes. Diodes, Inc. does not assume any liability arising out of the application or use of any product described herein; neither does it convey any license under its patent rights, nor the rights of others. The user of products in such applications shall assume all risks of such use and will agree to hold Diodes Incorporated and all the companies whose products are represented on our website, harmless against all damages.

LIFE SUPPORT

The products located on our website at www.diodes.com are not recommended for use in life support systems where a failure or malfunction of the component may directly threaten life or cause injury without the express written approval of Diodes Incorporated.