

1.0A SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

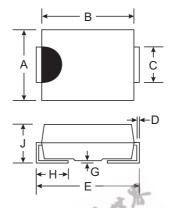
Features

- 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		
Α	2.29	2.92		
В	4.00	4.60		
С	1.27	1.63		
D	0.15	0.31		
E	4.80	5.59		
G	0.10	0.20		
Н	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

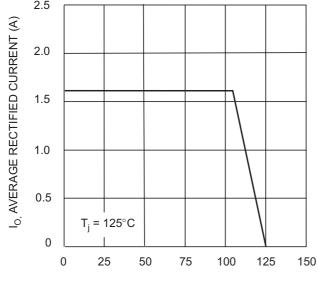
Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Characterist <mark>ic</mark>	Symbol	B130L	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage Blocking Voltage @ I _R = 1mA	V _{RRM} V _{RWM} V _R	30	V
RMS Reverse Voltage	V _{R(RMS)}	21	V
Average Rectified Output Current @ T _T = 105°C	Io	1.0	A
Peak Repetitive Forward Current (Note 2)	I _{FRM}	2.0	А
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave Superimposed on Rated Load (JEDEC Method)	I _{FSM}	25	А
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
		0.4 1.0 12 25	mA
Typical Junction Capacitance (Note 1)	C_{j}	110	pF
Typical Thermal Resistance Junction to Terminal	$R_{ heta JT}$	27	K/W
Operating Temperature Range	T _j	-55 to +125	°C
Storage Temperature Range	T _{STG}	-55 to +150	°C

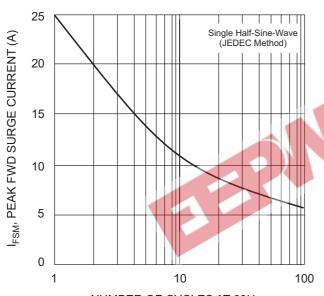
Notes:

- 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.

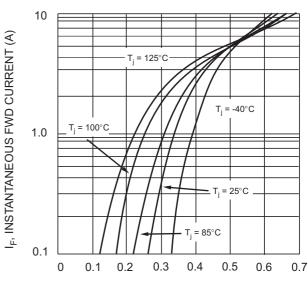




 T_{C} , CASE TEMPERATURE (°C) Fig. 1 Forward Current Derating Curve



NUMBER OF CYCLES AT 60Hz Fig. 3 Max Non-Repetitive Peak Fwd Surge Current



 $V_{\rm F}$, INSTANTANEOUS FORWARD VOLTAGE (V) Fig. 2 Typical Forward Characteristics

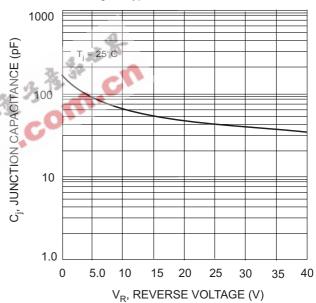
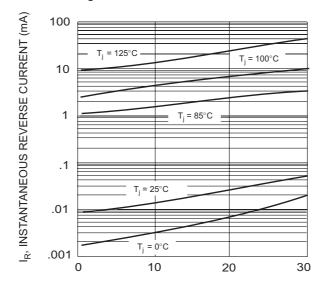


Fig. 4 Typical Junction Capacitance



 ${
m V_R}, {
m RATED\ PEAK\ REVERSE\ VOLTAGE\ (V)}$ 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.

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