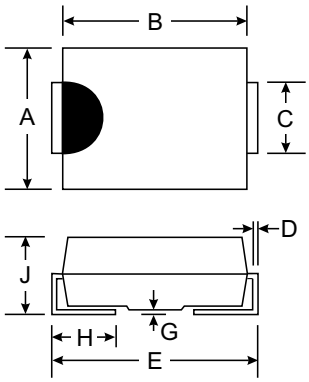
# B130L

## 1.0A SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

NEW PRODUCT

## Features

- Low Forward Voltage Drop
- Guard Ring Die Construction for Transient Protection
- Ideally Suited for Automatic Assembly
- Low Power Loss, High Efficiency
- Plastic Material: UL Flammability Classification Rating 94V-0




| 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 | 2.62 |
| **All Dimensions in mm** | | |

## Mechanical Data

- Case: SMA, Molded Plastic
- Terminals: Solder Plated Terminal - Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band or Cathode Notch
- Weight: 0.064 grams (approx.)
- Marking: B130L

## 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<br>Working Peak Reverse Voltage<br>Blocking Voltage | @ $I_R$ = 1mA | $V_{RRM}$<br>$V_{RWM}$<br>$V_R$ | 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<br>@ $I_F$ = 2.0A, $T_J$ = 25°C<br>@ $I_F$ = 1.0A, $T_J$ = 100°C<br>@ $I_F$ = 2.0A, $T_J$ = 100°C | $V_{FM}$ | 0.41<br>0.47<br>0.35<br>0.43 | V |
| Peak Reverse Current | @ $V_R$ = 15V, $T_A$ = 25°C<br>@ $V_R$ = 30V, $T_A$ = 25°C<br>@ $V_R$ = 15V, $T_A$ = 100°C<br>@ $V_R$ = 30V, $T_A$ = 100°C | $I_{RM}$ | 0.4<br>1.0<br>12<br>25 | mA |
| Typical Junction Capacitance (Note 1) | | $C_j$ | 110 | pF |
| Typical Thermal Resistance Junction to Terminal | | $R_{\theta JT}$ | 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.

NEW PRODUCT

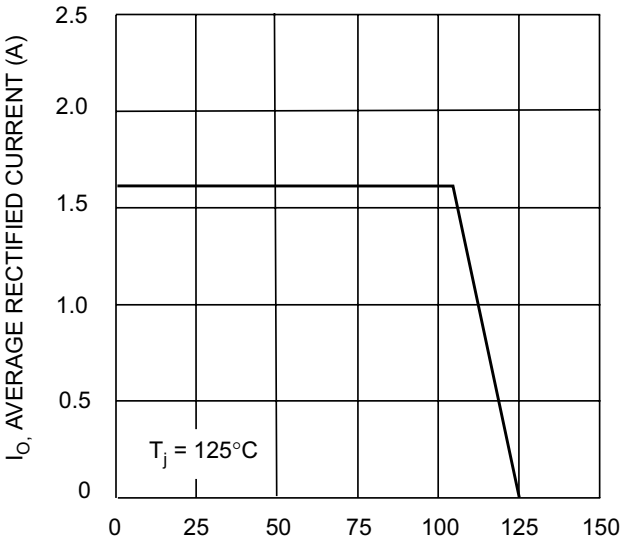



Fig. 1 Forward Current Derating Curve

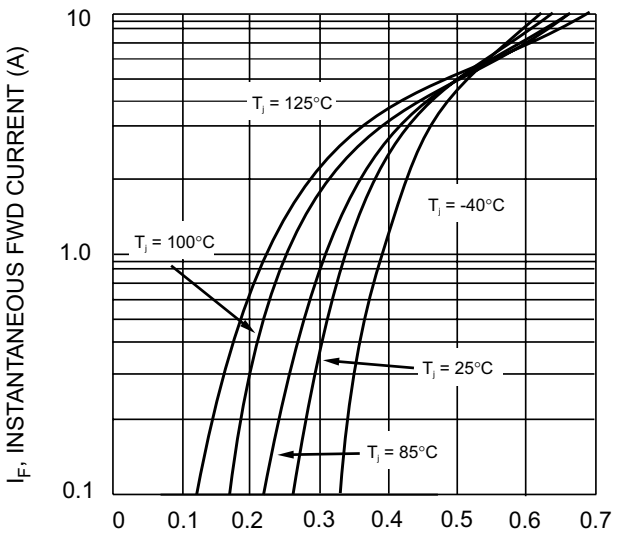



Fig. 2 Typical Forward Characteristics

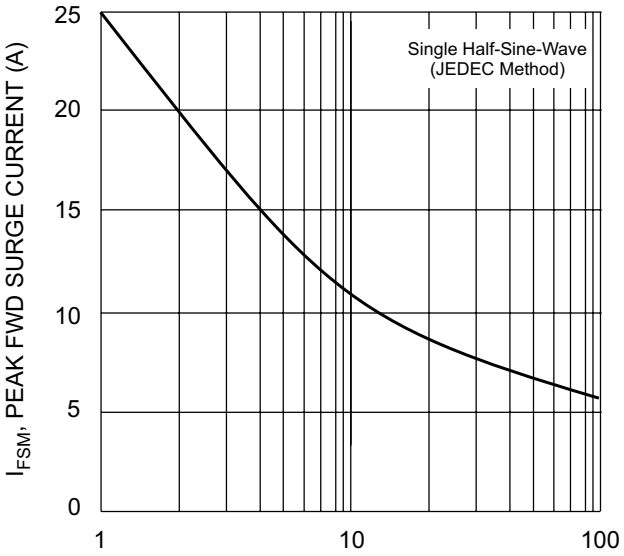



Fig. 3 Max Non-Repetitive Peak Fwd Surge Current

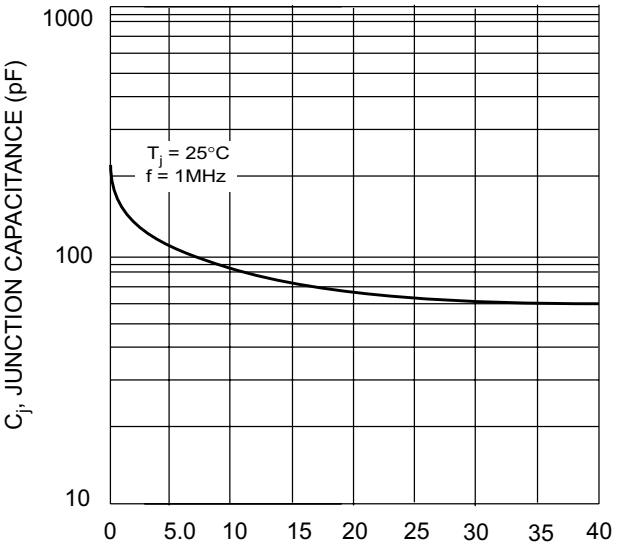



Fig. 4 Typical Junction Capacitance

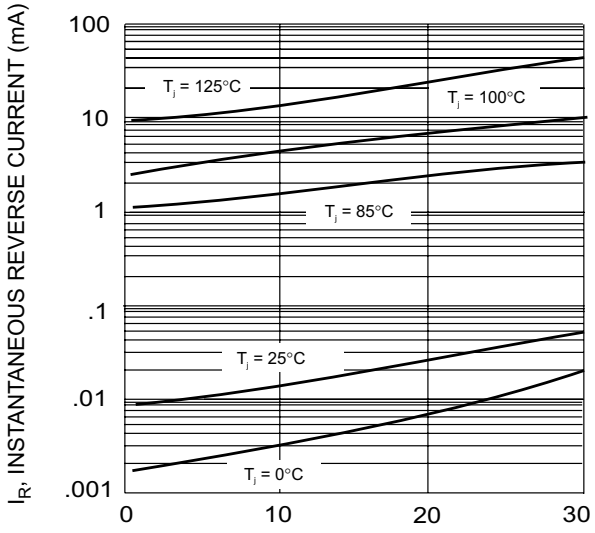



Fig. 5 Typical Reverse Characteristics