

Technical Data
Data Sheet 3112, Rev. -

10BQ200 SCHOTTKY RECTIFIER

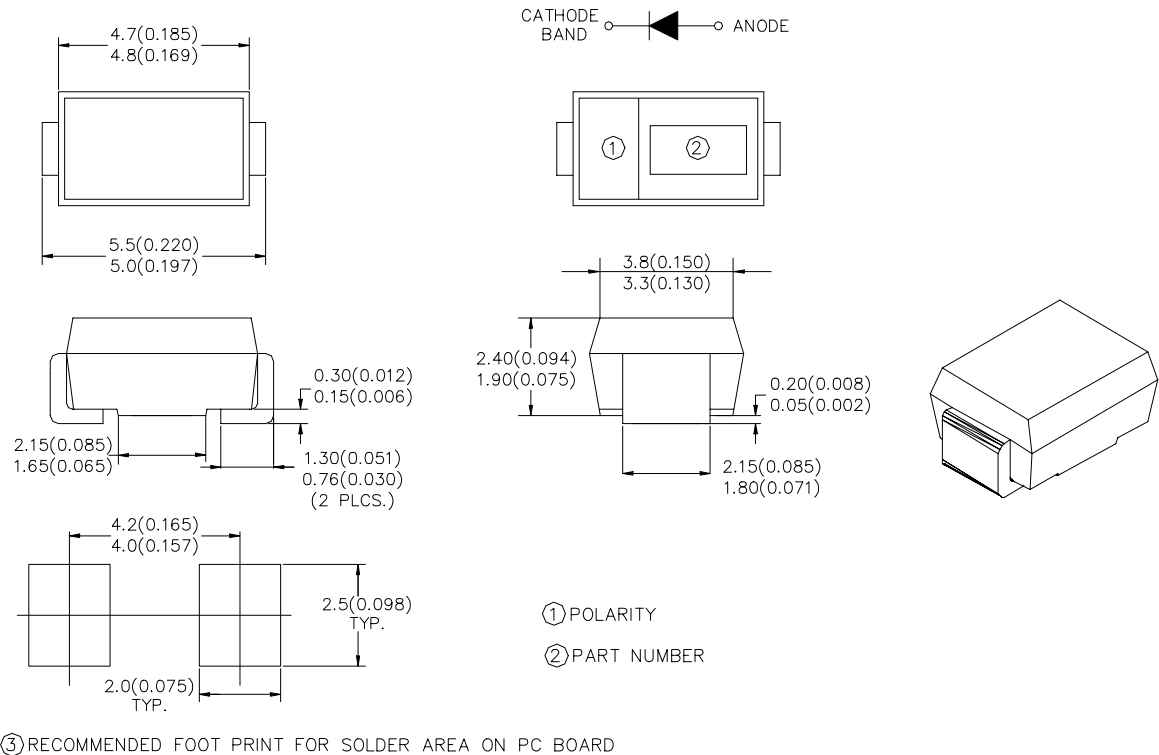
Applications:

- Switching power supply • Converters • Free-Wheeling diodes • Reverse battery protection
- Disk drives • Battery charging

Features:

- Small foot print, surface mountable
- Low forward voltage drop
- High frequency operation
- Guard ring for enhanced ruggedness and long term reliability

Mechanical Dimensions: In Inches / mm



SMB

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Maximum Ratings:

| Characteristics | Symbol | Condition | Max. | Units |
|--|-------------|--|------|-------|
| Peak Inverse Voltage | V_{RWM} | - | 200 | V |
| Max. Average Forward Current | $I_{F(AV)}$ | 50% duty cycle @ $T_L = 152\text{ }^\circ\text{C}$, rectangular wave form | 1.0 | A |
| Max. Peak One Cycle Non-Repetitive Surge Current | I_{FSM} | 8.3 ms, half Sine pulse | 20 | A |

Electrical Characteristics:

| Characteristics | Symbol | Condition | Max. | Units |
|-----------------------------|----------|---|--------|------------------|
| Max. Forward Voltage Drop* | V_{F1} | @ 1.0 A, Pulse, $T_J = 25\text{ }^\circ\text{C}$ | 0.92 | V |
| | V_{F2} | @ 1.0 A, Pulse, $T_J = 125\text{ }^\circ\text{C}$ | 0.76 | V |
| Max. Reverse Current * | I_{R1} | @ $V_R = \text{rated } V_R$ $T_J = 25\text{ }^\circ\text{C}$ | 0.5 | mA |
| | I_{R2} | @ $V_R = \text{rated } V_R$ $T_J = 125\text{ }^\circ\text{C}$ | 1 | mA |
| Max. Junction Capacitance | C_T | @ $V_R = 5\text{ V}$, $T_C = 25\text{ }^\circ\text{C}$ $f_{SIG} = 1\text{ MHz}$ | 20 | pF |
| Typical Series Inductance | L_S | Measured lead to lead 5 mm from package body | 2.0 | nH |
| Max. Voltage Rate of Change | dv/dt | - | 10,000 | V/ μs |

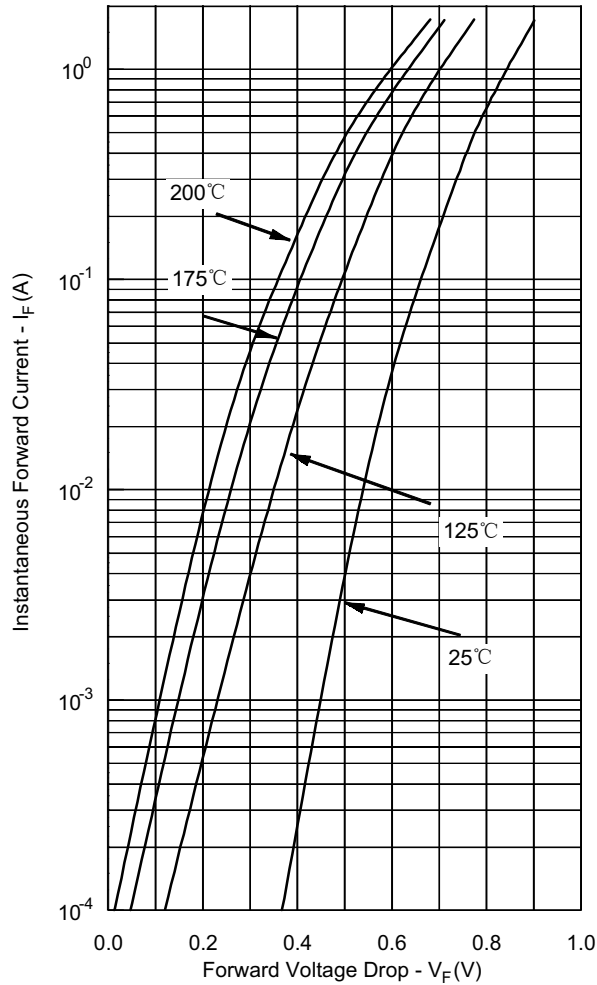
* Pulse Width < 300 μs , Duty Cycle <2%

Thermal-Mechanical Specifications:

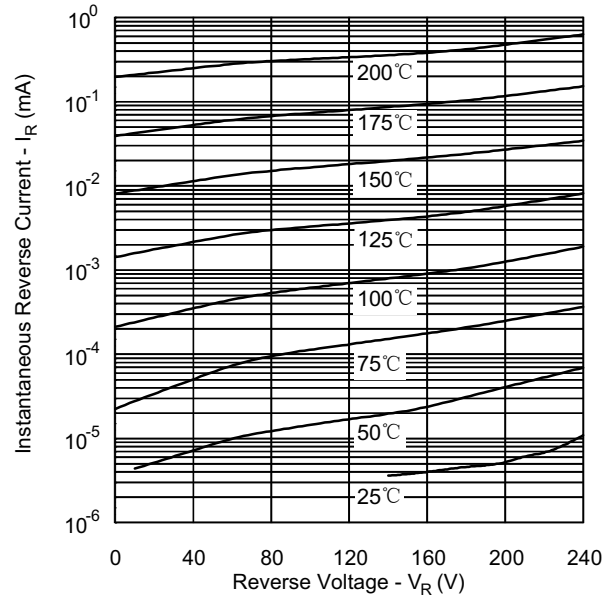
| Characteristics | Symbol | Condition | Specification | Units |
|--|-----------------|--------------|---------------|--------------------|
| Max. Junction Temperature | T_J | - | -55 to +175 | $^\circ\text{C}$ |
| Max. Storage Temperature | T_{stg} | - | -55 to +175 | $^\circ\text{C}$ |
| Max. Thermal Resistance, Junction to Lead | $R_{\theta JL}$ | DC operation | 36 | $^\circ\text{C/W}$ |
| Max. Thermal Resistance, Junction to Ambient | $R_{\theta JA}$ | DC operation | 140 | $^\circ\text{C/W}$ |
| Approximate Weight | wt | - | 0.10 | g |
| Case Style | SMB | | | |

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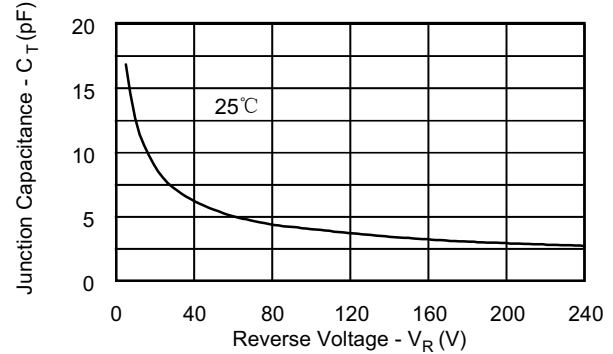
Typical Forward Characteristics



Typical Reverse Characteristics



Typical Junction Capacitance



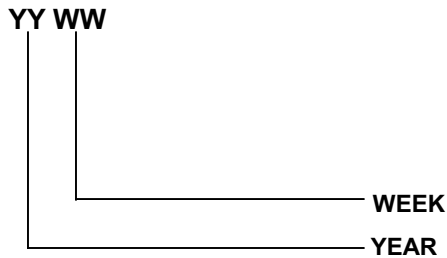
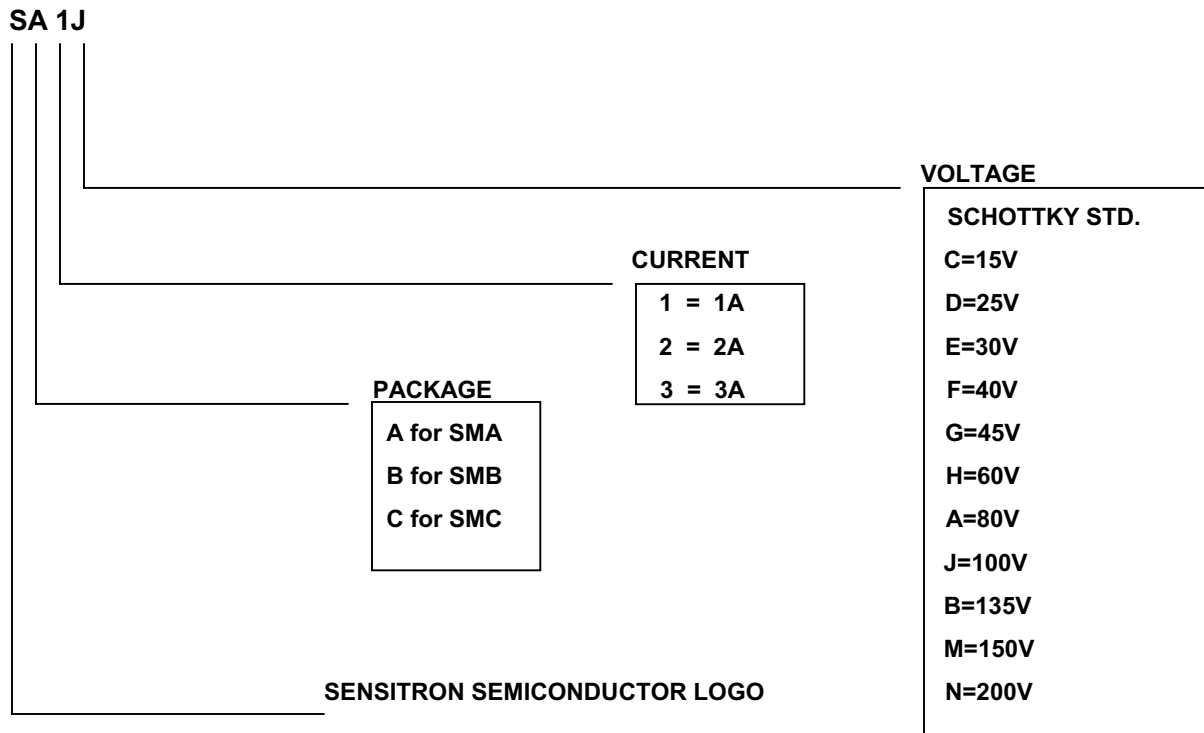
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Marking & Identification

Each device has 2 rows of marking for identification.

The first row designates the device as manufactured by Sensitron Semiconductor as indicated by the letter "S". It also contains the information about package style, current and voltage rating.

The second row indicates the year and the week of manufacturing.



TECHNICAL DATA

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