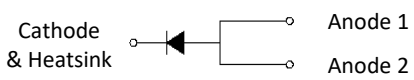
# 10A, 200V Schottky Rectifiers

## FEATURES

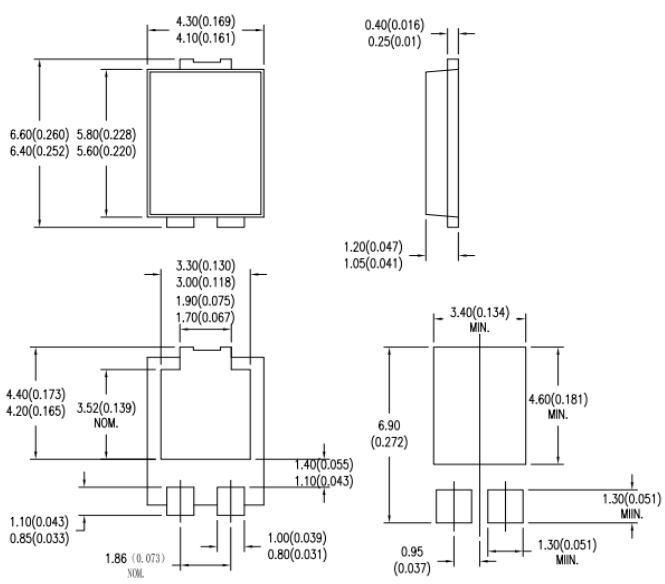
- Excellent high temperature stability
- Low forward voltage
- Low power loss/ high efficiency
- High forward surge capability
- Ideal for automated placement
- Compliant to RoHS Directive 2011/65/EU and in accordance to WEEE 2002/96/EC
- Halogen-free according to IEC 61249-2-21 definition


TO-277B




## TYPICAL APPLICATIONS

Trench Schottky barrier rectifier is designed for high frequency miniature switched mode power supplies such as adapters, lighting and on-board DC/DC converters.




## MECHANICAL DATA

**Case:** TO-277B

Molding compound meets UL 94 V-0 flammability rating

Moisture sensitivity level: level 1, per J-STD-020

**Terminal:** Matte tin plated leads, solderable per JESD22-B102

Meet JESD 201 class 2 whisker test

**Polarity:** Indicated by cathode band

**Weight:** 0.095g (approximately)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS ($T_A$=25°C unless otherwise noted)

| PARAMETER | | | SYMBOL | SB10200 | UNIT |
|---|---|---|---|---|---|
| Maximum repetitive peak reverse voltage | | | $V_{RRM}$ | 200 | V |
| Maximum average forward rectified current | | | $I_{F(AV)}$ | 10 | A |
| Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load per diode | | | $I_{FSM}$ | 150 | A |
| Maximum instantaneous forward voltage per diode (Note 1) | $I_F$ = 10A | $T_J$ = 25°C | $V_F$ | 0.90 | V |
| Maximum instantaneous reverse current per diode at rated reverse voltage | | $T_J$ = 25°C | $I_R$ | 5 | μA |
| | | $T_J$ = 125°C | | 10 | mA |
| Typical thermal resistance | | | $R_{\theta JL}$ | 15 | °C/W |
| Operating temperature range | | | $T_J$ | - 55 to +175 | °C |
| Storage temperature range | | | $T_{STG}$ | - 55 to +175 | °C |

Note 1: Pulse Test with Pulse Width=300μs, 1% Duty Cycle

## RATINGS AND CHARACTERISTICS CURVES

($T_A$=25°C unless otherwise noted)

FIG.1 FORWARD CURRENT DERATING CURVE

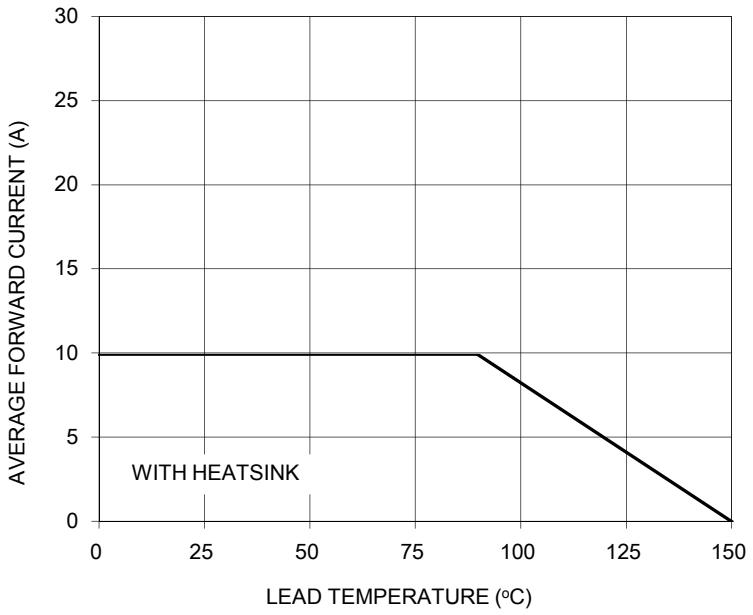



FIG. 2 TYPICAL FORWARD CHARACTERISTICS

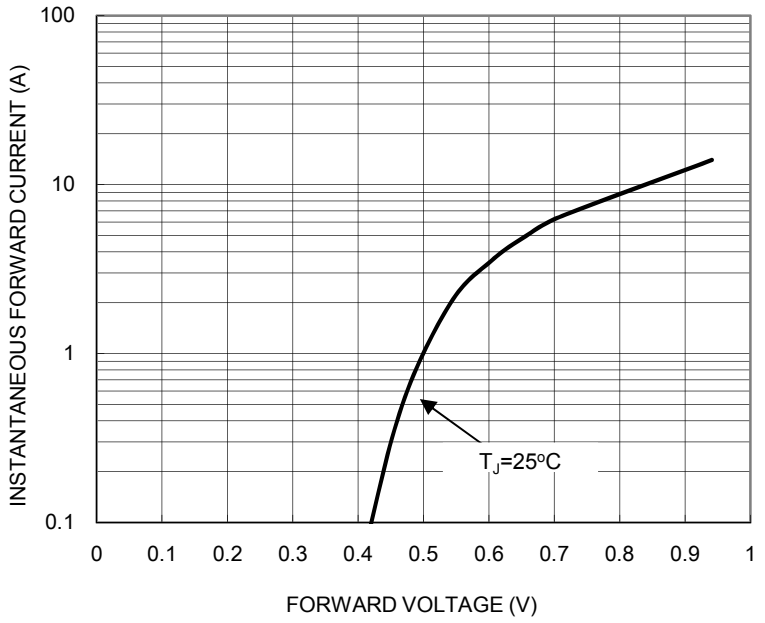



FIG. 3 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

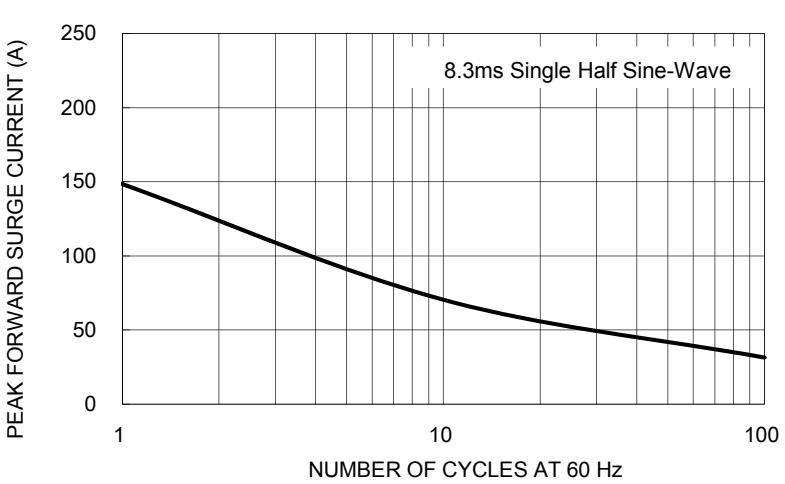



FIG. 4 TYPICAL REVERSE CHARACTERISTICS

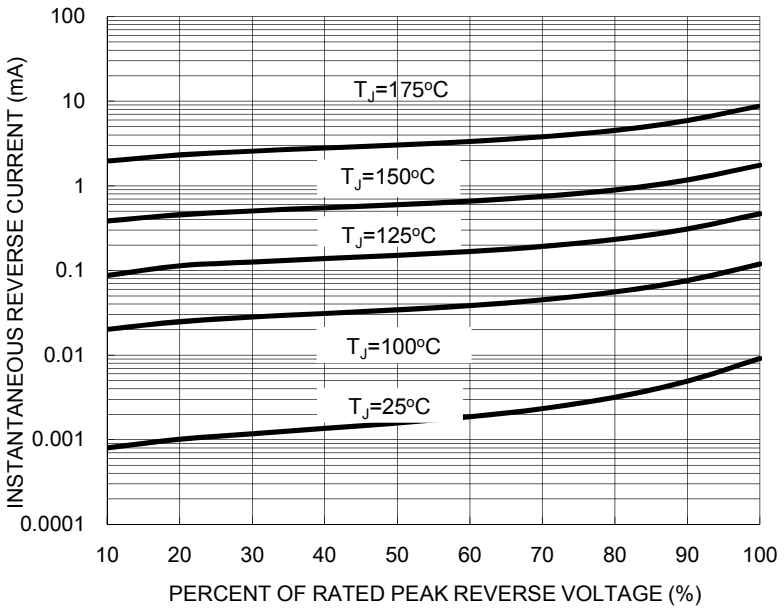



FIG. 5 TYPICAL JUNCTION CAPACITANCE