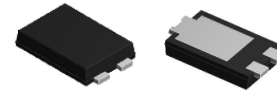


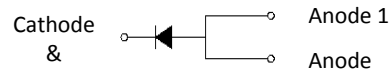
10A Surface Mount Schottky Rectifier

Features

- Low forward voltage drop, low power losses
 - Low leakage current
 - High efficiency
 - Very low profile - typical height of 1.1 mm
 - Heatsink design
 - Halogen-free according to IEC 61249-2-21 definition
 - Moisture sensitivity: level 1, per J-STD-020
-
- High temperature soldering guaranteed: 260°C/10 seconds



TO-277B



Typical Applications

For low voltage high frequency inverters, DC/DC converters and polarity protection and polarity protection application.

Mechanical Data

Case: TO-277B

Molding compound meets UL 94 V-0 flammability

Terminals: Matte tin plated leads, solderable per J-STD-002 and JESD 22-B102

Ordering Information

| Part Number | Qualification | Case | Packaging |
|-------------|---------------|---------|------------------|
| SB10150-A | Commercial | TO-277B | 5000/Tape & Reel |

| Maximum Ratings (TA = 25 °C unless otherwise noted) | | | |
|--|-----------------------------------|-------------|------|
| Parameter | Symbol | SB10150-A | Unit |
| Maximum repetitive peak reverse voltage | V _{RRM} | 150 | V |
| Maximum RMS voltage | V _{RMS} | 105 | V |
| Maximum DC blocking voltage | V _{DC} | 150 | V |
| Maximum average forward rectified current | I _{F(AV)} ¹⁾ | 10 | A |
| | I _{F(AV)} ²⁾ | 5 | |
| Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load | I _{FSM} | 180 | A |
| Operating junction and storage temperature range | T _J , T _{STG} | -55 to +175 | °C |

Notes:

1) The thermal resistance from junction to ambient, case or mount, mounted on P.C.B with 30×30mm copper pads, 2 OZ, FR4 PCB.

2): Mounted on recommended copper pad area, free air.



| Electrical Characteristics (TA = 25 °C unless otherwise noted) | | | | | |
|---|---------------------|----------|--------|------|-------|
| Parameter | Test Conditions | | Symbol | Max | Unit |
| Maximum instantaneous forward voltage | IF=10A | TA=25°C | | 0.90 | Volts |
| Maximum DC reverse current at rated DC blocking voltage | Rated VR | TA=25°C | IR | 0.2 | mA |
| | | TA=100°C | | 10 | mA |
| Typical thermal resistance ¹⁾ | junction to ambient | | RθJA | 110 | °C/W |
| | junction to case | | RθJC | 65 | |
| | junction to mount | | RθJM | 40 | |

Ratings and Characteristics Curves

FIG.1 FORWARD CURRENT DERATING CURVE

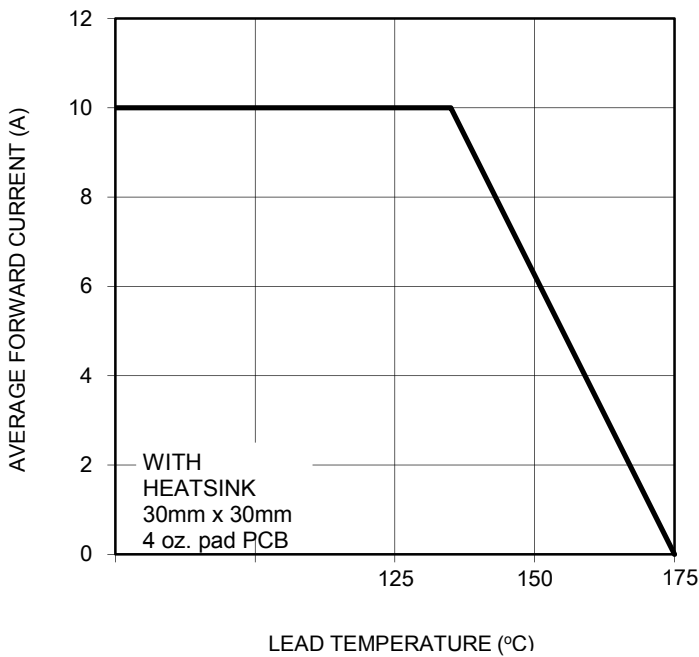


FIG.2 TYPICAL FORWARD CHARACTERISTICS

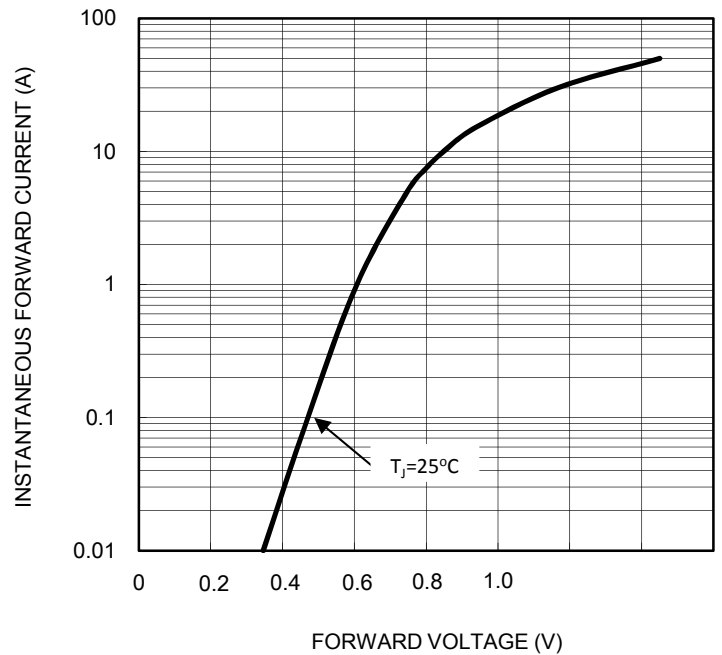


FIG. 3-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

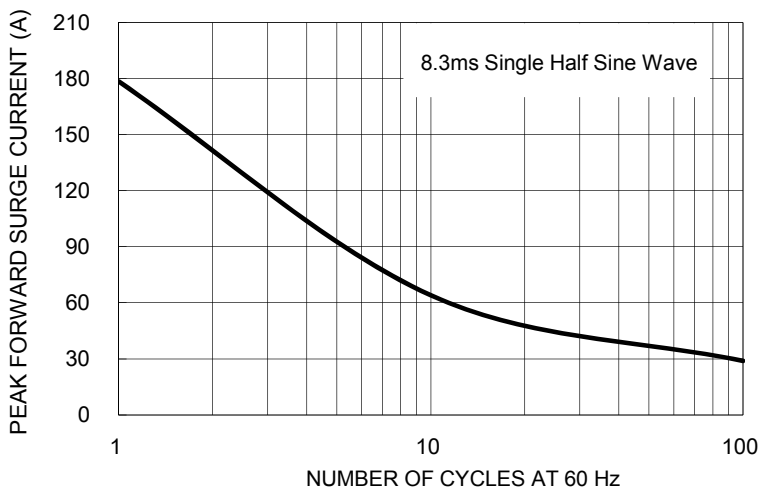
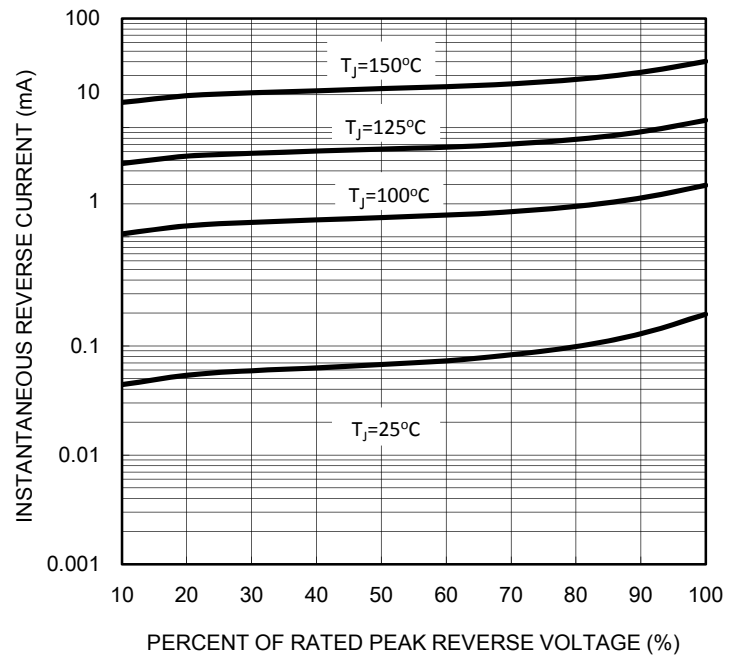
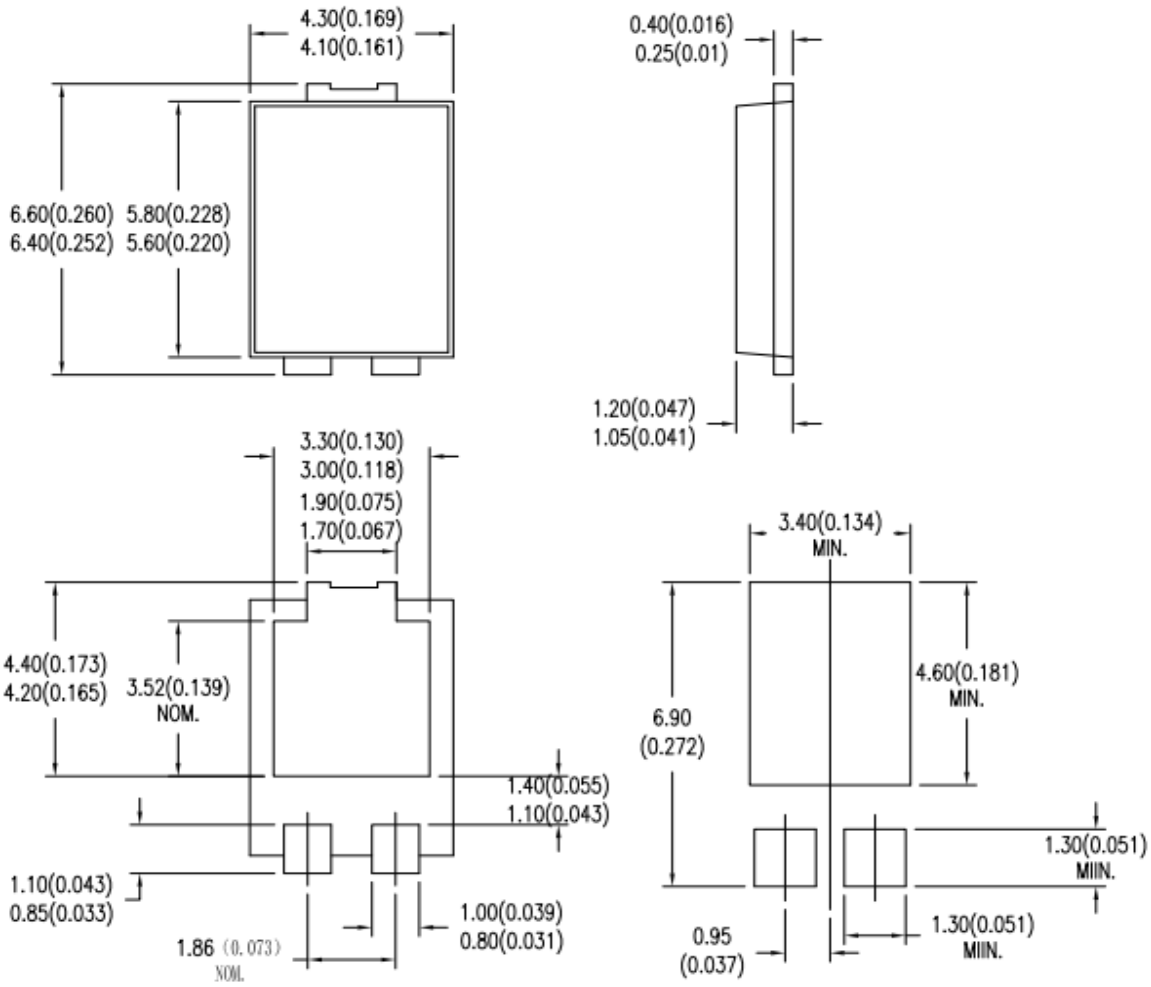


FIG.4 TYPICAL REVERSE CHARACTERISTICS





Package Outline Dimensions in millimeters (inches)



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