

FEATURES

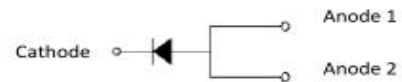
- Planar MOS schottky barrier diode
- Low forward voltage drop
- Low profile - typical body height 1.1 mm
- High temperature soldering guaranteed: 260°C/10 seconds
- RoHS compliant
- Halogen-free according to IEC 61249-2-21 definition

TO-277B



RoHS
COMPLIANT

HALOGEN
FREE



MECHANICAL DATA

- Case: TO-277B
- Case material: molding compound meets UL 94V-0 flammability rating

TYPICAL APPLICATION

General purpose use in AC to DC wave rectification for SMPS, lighting, adapter, charger, home appliance, office equipment and telecommunication.

MAXIMUM RATINGS

$T_A=25^{\circ}\text{C}$ unless otherwise noted

| Parameter | Symbol | Value | Unit |
|---|-------------|-------------|--------------------|
| Repetitive Peak Reverse Voltage | V_{RRM} | 50 | V |
| Average Forward Rectified Current | $I_{F(AV)}$ | 15 | A |
| Peak Forward Surge Current (8.3 ms single half sine-wave superimposed on rated load) | I_{FSM} | 160 | A |
| Operating Junction Temperature Range | T_J | -55 to +150 | $^{\circ}\text{C}$ |
| Storage Temperature Range | T_{STG} | -55 to +150 | $^{\circ}\text{C}$ |

ELECTRICAL CHARACTERISTICS

$T_A=25^{\circ}\text{C}$ unless otherwise noted

| Parameter | Test Conditions | Symbol | Value | | Unit |
|---|---------------------------|-----------------|-------|------|----------------------|
| | | | Typ. | Max. | |
| Forward Voltage@ $I_F=15\text{A}$ | $T_A=25^{\circ}\text{C}$ | V_F | 0.52 | 0.56 | V |
| | $T_A=125^{\circ}\text{C}$ | | 0.44 | 0.47 | |
| Reverse Current @ V_{RRM} | $T_A=25^{\circ}\text{C}$ | I_R | 80 | 150 | μA |
| | $T_A=125^{\circ}\text{C}$ | | 50 | 100 | mA |
| Typical Thermal Resistance (junction to ambient) | | $R_{\theta JA}$ | 102 | | $^{\circ}\text{C/W}$ |



RATINGS AND CHARACTERISTIC CURVES

$T_A=25^\circ\text{C}$ unless otherwise noted

FIG.1: Forward Output Current Derating Curve

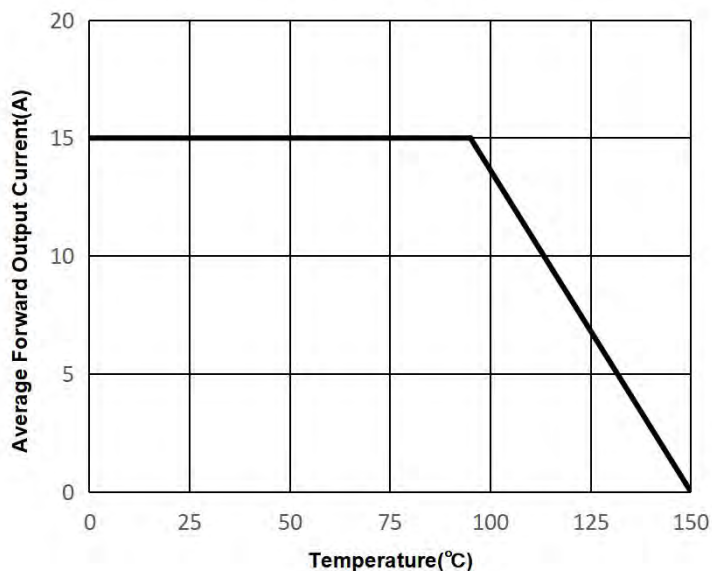


FIG.2: Maximum Non-Repetitive Peak Forward Surge Current

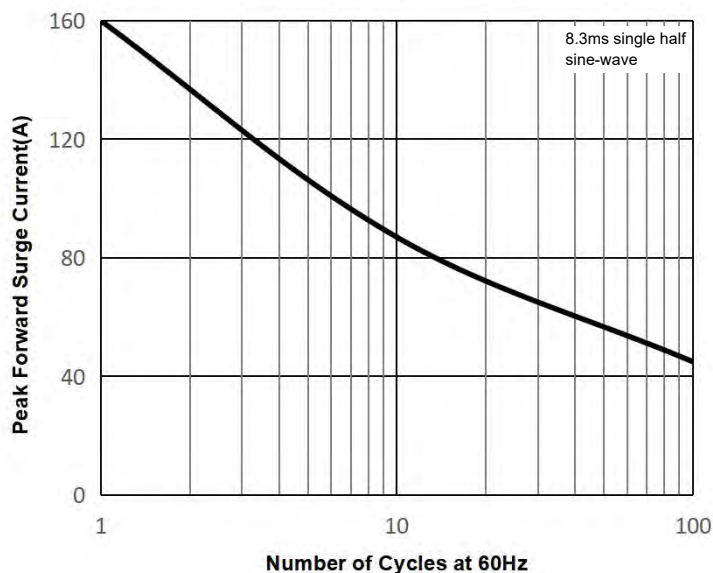


FIG.3: Typical Forward Characteristics

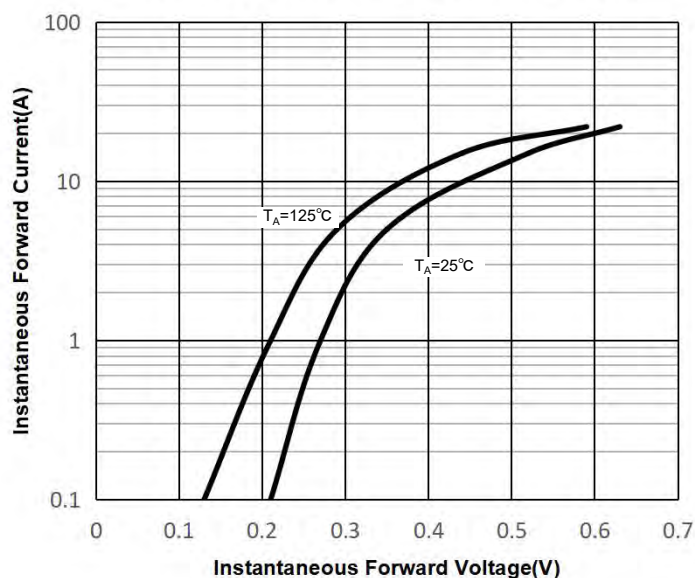
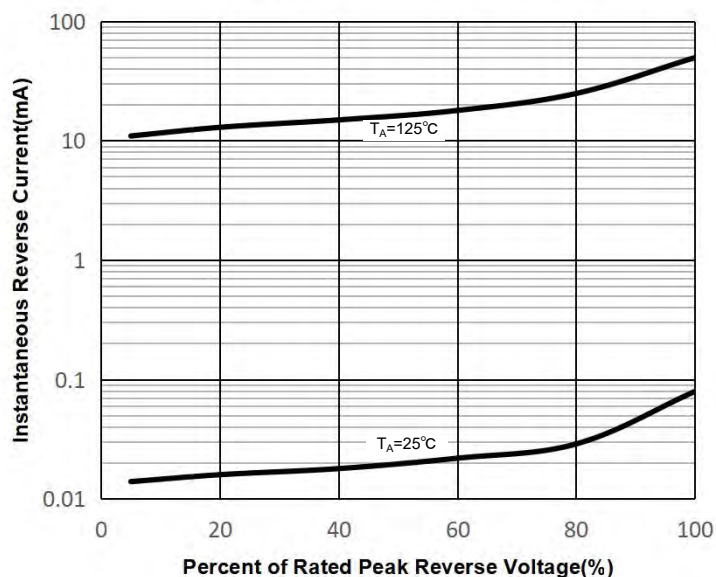
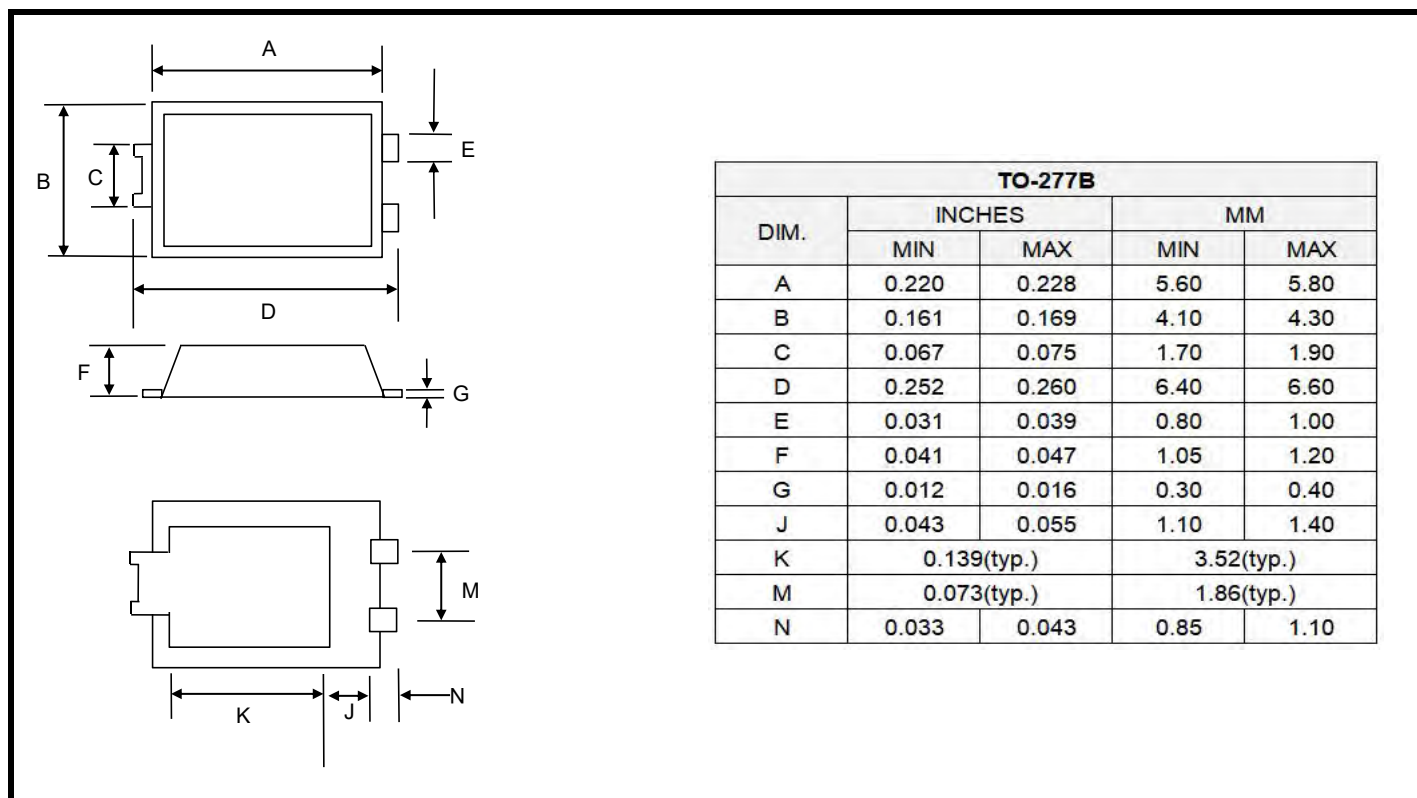


FIG.4: Typical Reverse Characteristics



PACKAGE OUTLINE DIMENSIONS



PACKING INFORMATION

| Package | Reel(PCS) | Inner Box(PCS) | Carton(PCS) |
|---------|-----------|----------------|-------------|
| TO-277B | 5,000 | 10,000 | 80,000 |



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