

60A, 60V Low Forward Voltage Schottky Rectifier

FEATURES

- Planar MOS schottky barrier diode
- Low forward voltage drop
- High temperature soldering guaranteed: 270°C/10 seconds
- RoHS compliant

MECHANICAL DATA

- Case: TO-247
- Case material: molding compound meets UL 94V-0 flammability rating
- Polarity: as marked on case body

TYPICAL APPLICATION

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

MAXIMUM RATINGS

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

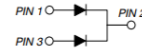
| Parameter | Symbol | Value | Unit |
|---|-------------|-------------|--------------------|
| Repetitive Peak Reverse Voltage | V_{RRM} | 60 | V |
| Average Forward Rectified Current | $I_{F(AV)}$ | 60 | A |
| Peak Forward Surge Current (8.3 ms single half sine-wave superimposed on rated load) | I_{FSM} | 400 | 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@ $I_F=30\text{A}$ | $T_A=25^{\circ}\text{C}$ | V_F | 0.58 | 0.62 | V |
| | $T_A=125^{\circ}\text{C}$ | | 0.5 | 0.54 | V |
| Reverse Current @ V_{RRM} | $T_A=25^{\circ}\text{C}$ | I_R | 100 | 300 | μA |
| | $T_A=125^{\circ}\text{C}$ | | 60 | 150 | mA |
| Typical Thermal Resistance | | $R_{\theta JC}$ | 0.9 | | $^{\circ}\text{C}/\text{W}$ |

TO-247



RoHS
COMPLIANT

HALOGEN
FREE
AVAILABLE

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RATINGS AND CHARACTERISTIC CURVES

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

FIG.1: Forward Output Current Derating Curve

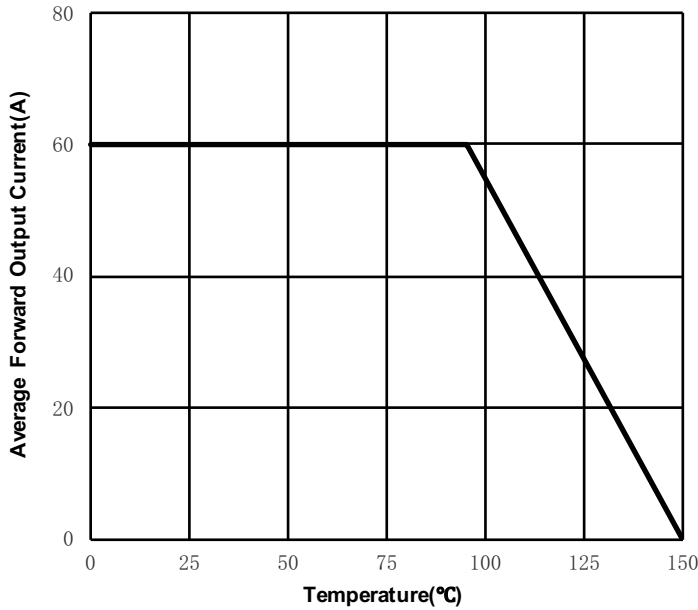


FIG.2: Maximum Non-Repetitive Peak Forward Surge Current

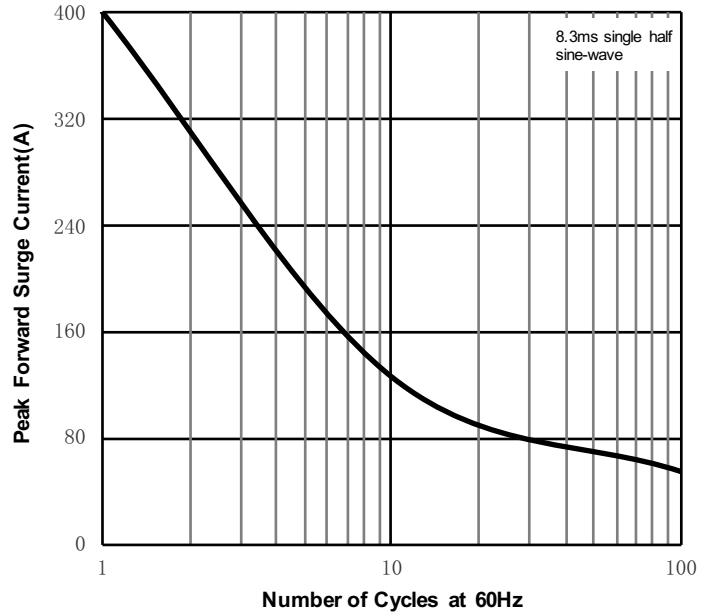


FIG.3: Typical Forward Characteristics

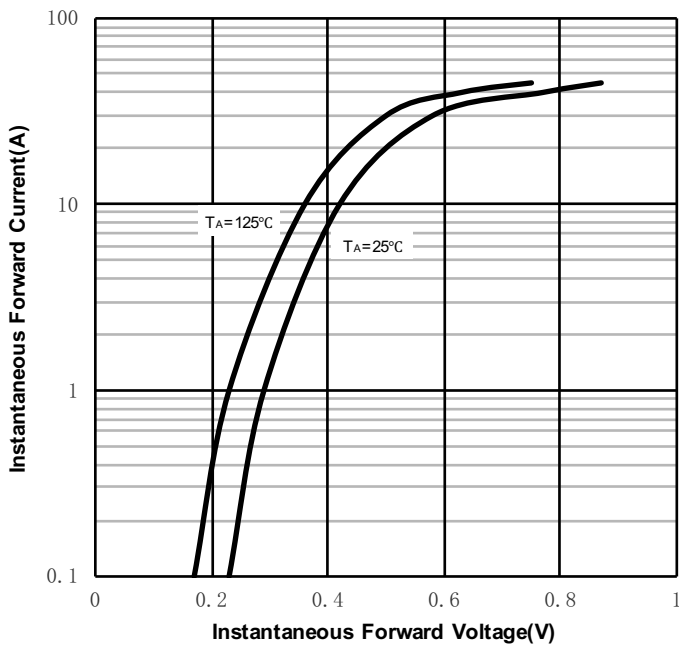


FIG.4: Typical Reverse Characteristics

