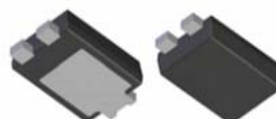


Features

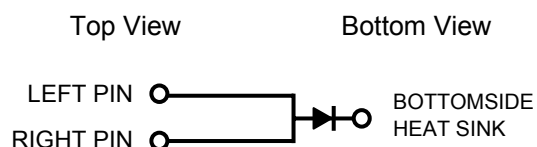
- High current capability, low forward voltage
- Excellent high temperature stability
- Low power loss, and high efficiency
- High Forward Surge Capability
- Patented package technology

TO-277B (SMD)



Applications

- Switching mode power supply applications
- Portable equipment battery applications
- High frequency rectification
- DC/DC Converter
- Designed as bypass diodes for solar panels



ABSOLUTE MAXIMUM RATINGS ($T_A=25^{\circ}\text{C}$, unless otherwise specified)

| CHARACTERISTIC | SYMBOL | RATING | UNIT |
|--|-------------|----------|----------------------|
| Repetitive peak reverse voltage | V_{RRM} | 50 | V |
| Maximum DC blocking voltage | V_{RM} | 50 | |
| Average forward current | $I_{F(AV)}$ | 15 | A |
| Surge non repetitive forward current (8.3ms single half sine- wave) | I_{FSM} | 295 | |
| Single pulse davalanche energy ($I_{AS}=12\text{A}$, $L=10\text{mH}$) | E_{AS} | 530 | mJ |
| Junction Temperature | T_J | 150 | $^{\circ}\text{C}$ |
| Storage Temperature | T_{stg} | -55~+150 | |
| Thermal Resistance, Junction-to-Ambiene | R_{QJA} | 73 | $^{\circ}\text{C/W}$ |
| | R_{QJA} | 31 | |

Note: 1. FR-4 PCB, 2oz. Copper.

2. Polyimide PCB, 2oz. Copper. Cathode pad dimensions 18.8mm × 14.4mm. Anode pad dimensions 5.6mm × 14.4mm.

Electrical Characteristics

| Characterisctic | Symbol | Test Condition | Rating | | | UNIT | |
|-------------------------|--------|----------------------------|---------------------------|--------------------------|-------|------|------|
| | | | Min | Typ | Max | | |
| Fo rward voltage drop | V_F | $I_F=3\text{A}$ | -- | 0.33 | 0.36 | V | |
| | | | $I_F=10\text{A}$ | -- | 0.41 | | 0.46 |
| | | $I_F=15\text{A}$ | | $T_J=25^{\circ}\text{C}$ | -- | | 0.43 |
| | | | $T_J=100^{\circ}\text{C}$ | -- | 0.40 | | 0.41 |
| Reverse leakage current | I_R | $V_R=\text{Max. } V_{RRM}$ | $T_J=25^{\circ}\text{C}$ | -- | 0.076 | 0.30 | mA |
| | | | $T_J=125^{\circ}\text{C}$ | -- | 16 | 60 | |



Fig-1. Typical Forward Characteristics

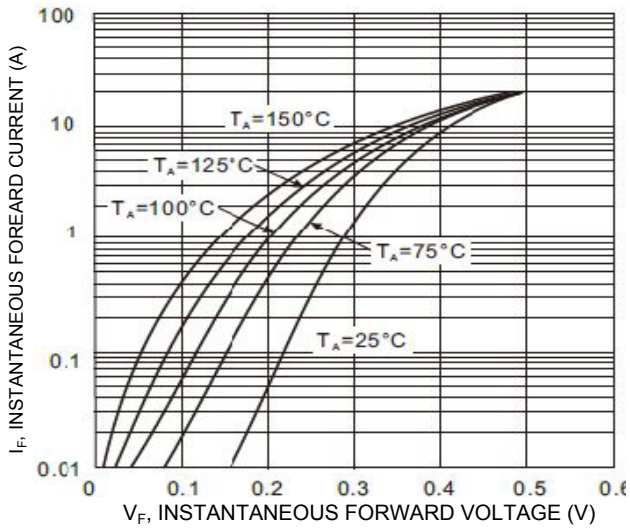


Fig-2. Typical Reverse Characteristics

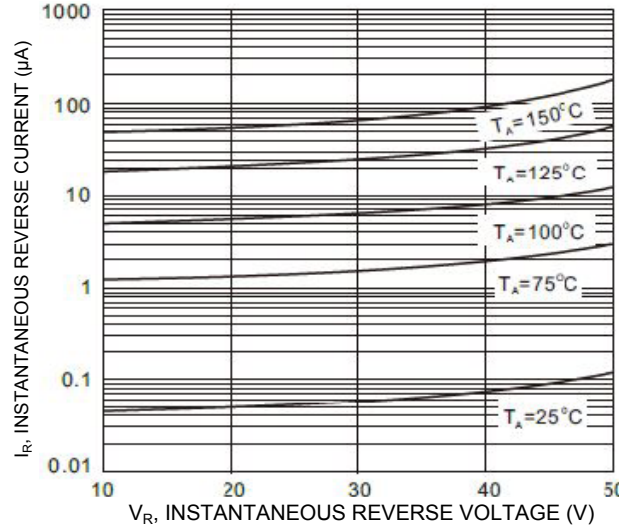


Fig-3. Forward Current Derating Curve

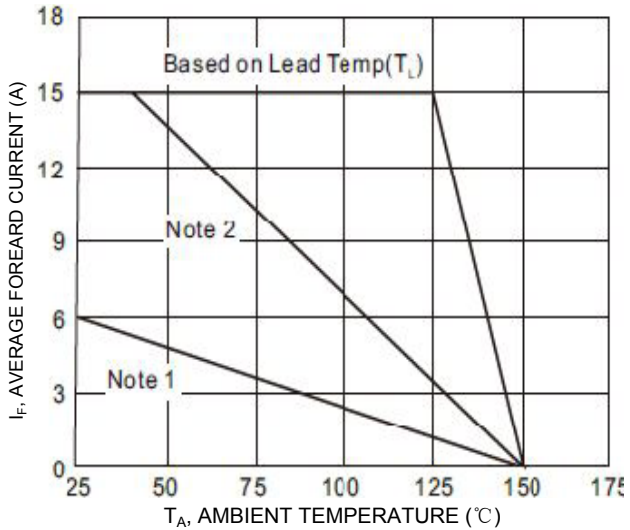


Fig-4. Operating Temperature Derating Curve

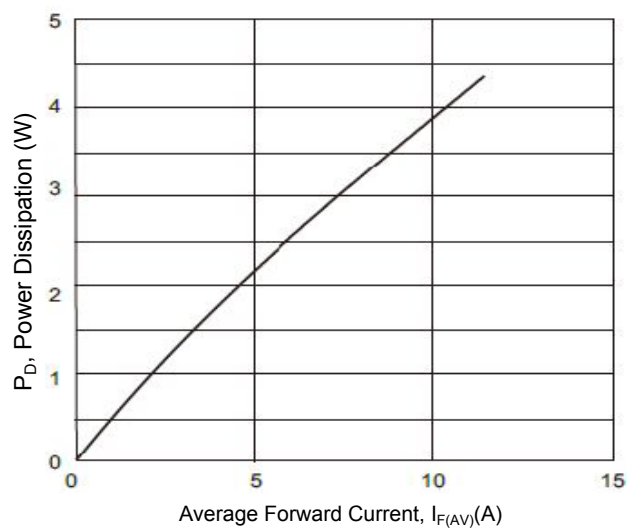


Fig-5. Total Capacitance VS. Reverse Voltage

