

TECHNICAL DATA
DATA SHEET 4790, REV. B**SILICON SCHOTTKY RECTIFIER**
Ultra Low Reverse Leakage
175°C Operating Temperature**Applications:**

- Switching Power Supply
- Converters
- Free-Wheeling Diodes
- Polarity Protection Diode

Features:

- Ultra low Reverse Leakage Current
- Soft Reverse Recovery at Low and High Temperature
- Very Low Forward Voltage Drop
- Low Power Loss, High Efficiency
- High Surge Capacity
- Guard Ring for Enhanced Durability and Long Term Reliability
- Guaranteed Reverse Avalanche Characteristics

Maximum Ratings:

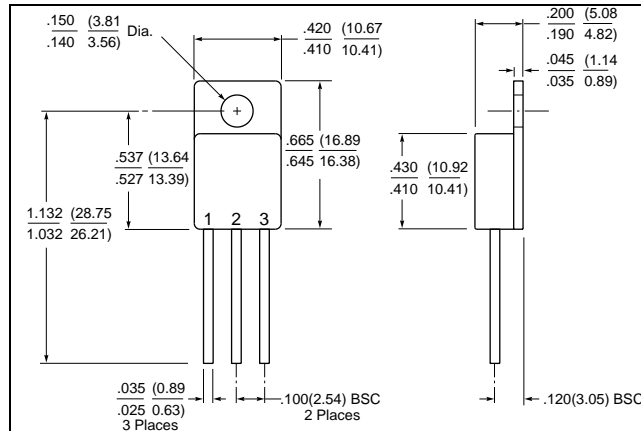
| Characteristics | Symbol | Condition | Max. | Units |
|--|-----------------|---------------------------------------|-------------|-------|
| Peak Inverse Voltage | V_{RWM} | - | 15 | V |
| Max. Average Forward Current | $I_{F(AV)}$ | 50% duty cycle, rectangular wave form | 16 | A |
| Max. Peak One Cycle Non-Repetitive Surge Current | I_{FSM} | 8.3 ms, half Sine wave | 75 | A |
| Max. Junction Temperature | T_J | - | -65 to +175 | °C |
| Max. Storage Temperature | T_{stg} | - | -65 to +175 | °C |
| Thermal Resistance (per leg) | $R_{\theta JC}$ | - | 1.5 | °C/W |

Electrical Characteristics:

| Characteristics | Symbol | Condition | Max. | Units |
|---------------------------|----------|--|------|-------|
| Max. Forward Voltage Drop | V_{F1} | @ 16A, Pulse, $T_J = 25\text{ °C}$ | 0.46 | V |
| | V_{F2} | @ 16A, Pulse, $T_J = 125\text{ °C}$ | 0.42 | V |
| Max. Reverse Current | I_{R1} | @ $V_R = 15\text{V}$, Pulse, $T_J = 25\text{ °C}$ | 14 | mA |
| | I_{R2} | @ $V_R = 15\text{V}$, Pulse, $T_J = 125\text{ °C}$ | 680 | mA |
| Max. Junction Capacitance | C_T | @ $V_R = 5\text{V}$, $T_C = 25\text{ °C}$ $f_{SIG} = 1\text{MHz}$, $V_{SIG} = 50\text{mV (p-p)}$ | 2400 | pF |

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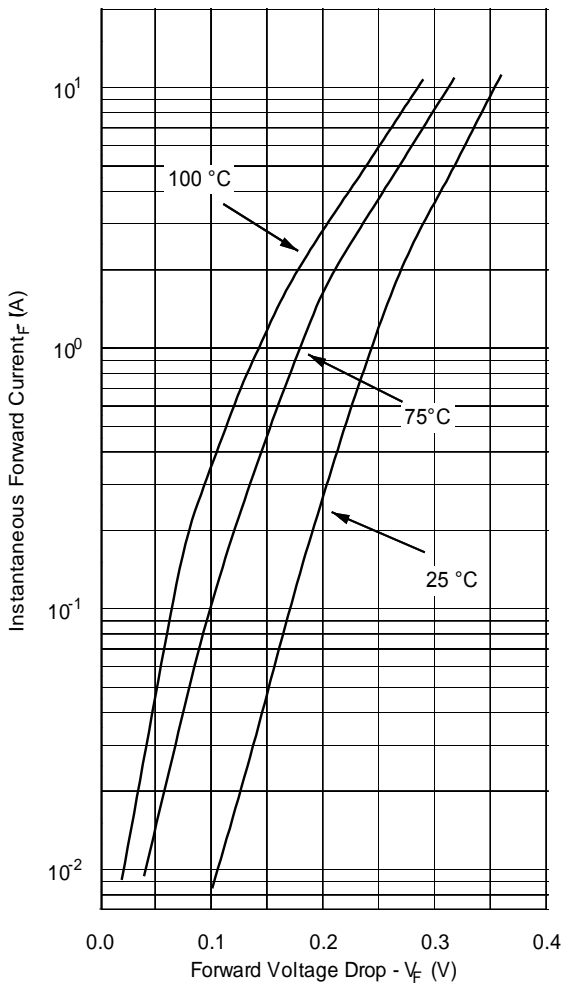
Mechanical Dimensions: In Inches / mm



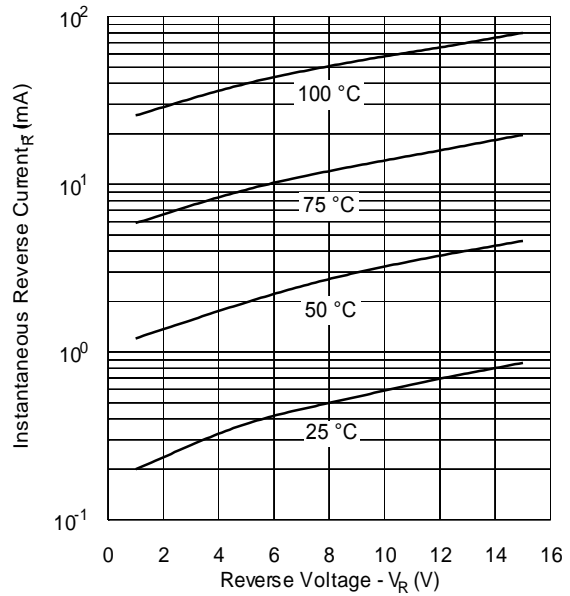
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| DEVICE TYPE | PIN 1 | PIN 2 | PIN 3 |
|------------------|---------|-------|-------|
| SINGLE RECTIFIER | CATHODE | ANODE | ANODE |

Typical Forward Characteristics



Typical Reverse Characteristics



Typical Junction Capacitance

