

TECHNICAL DATA
DATA SHEET 824, REV. D

HERMETIC POWER SCHOTTKY RECTIFIER

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
- Out Performs 60 Volt Ultrafast Rectifiers

Maximum Ratings:

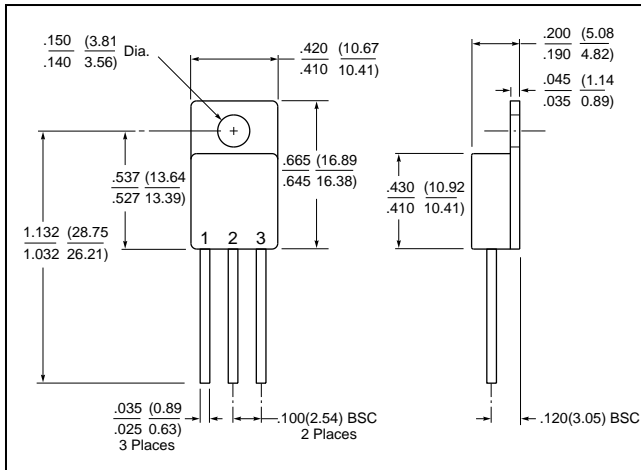
| Characteristics | Symbol | Condition | Max. | Units |
|--|-----------------|--|-------------|-------|
| Peak Inverse Voltage | V_{RWM} | - | 60 | V |
| Max. Average Forward Current | $I_{F(AV)}$ | 50% duty cycle, rectangular wave form. | 15 | A |
| Max. Peak One Cycle Non-Repetitive Surge Current | I_{FSM} | 8.3 ms, half Sine wave (per leg) | 280 | A |
| Max. Thermal Resistance | $R_{\theta JC}$ | (per leg) | 2.82 | °C/W |
| Max. Junction Temperature | T_J | - | -65 to +175 | °C |
| Max. Storage Temperature | T_{stg} | - | -65 to +175 | °C |

Electrical Characteristics:

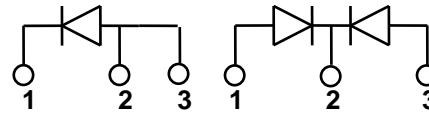
| Characteristics | Symbol | Condition | Max. | Units |
|---------------------------|----------|---|------|-------|
| Max. Forward Voltage Drop | V_{F1} | @ 15A, Pulse, $T_J = 25\text{ °C}$ (per leg) | 0.80 | V |
| | V_{F2} | @ 15A, Pulse, $T_J = 125\text{ °C}$ (per leg) | 0.73 | V |
| Max. Reverse Current | I_{R1} | @ $V_R = 60V$, Pulse, $T_J = 25\text{ °C}$ (per leg) | 0.4 | mA |
| | I_{R2} | @ $V_R = 60V$, Pulse, $T_J = 125\text{ °C}$ (per leg) | 30 | mA |
| Max. Junction Capacitance | C_T | @ $V_R = 5V$, $T_C = 25\text{ °C}$ $f_{SIG} = 1MHz$, $V_{SIG} = 50mV$ (p-p) (per leg) | 720 | pF |

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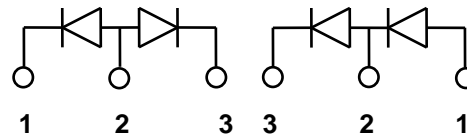
Mechanical Dimensions: In Inches / mm



SINGLE COMMON CATHODE



COMMON ANODE DOUBLER

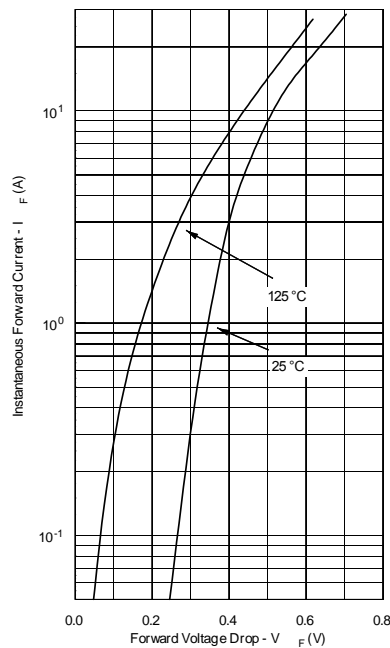


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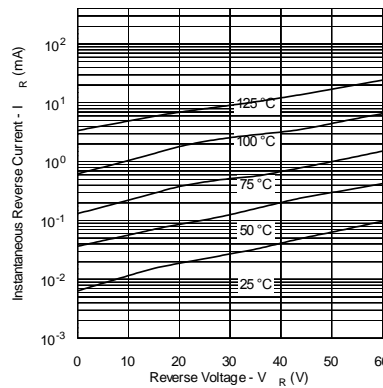
PINOUT TABLE

| TYPE | PIN 1 | PIN 2 | PIN 3 |
|------------------------------------|-----------|----------------|-----------|
| SINGLE RECTIFIER | CATHODE | ANODE | ANODE |
| DUAL RECTIFIER, COMMON CATHODE (P) | ANODE 1 | COMMON CATHODE | ANODE 2 |
| DUAL RECTIFIER, COMMON ANODE (N) | CATHODE 1 | COMMON ANODE | CATHODE 2 |
| DUAL RECTIFIER, DOUBLER (D) | ANODE | ANODE/CATHODE | CATHODE |

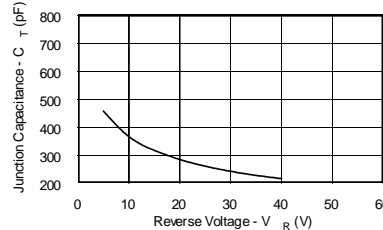
Typical Forward Characteristics



Typical Reverse Characteristics



Typical Junction Capacitance



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