TECHNICAL DATA DATA SHEET 4692, REV. -

HERMETIC POWER SCHOTTKY RECTIFIER Very Low Forward Voltage

Applications:

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

Features:

- 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:

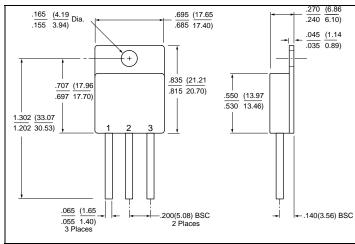
| Characteristics | Symbol | Condition Max. | | Units |
|--|--------------------|--|-------------|-------|
| Peak Inverse Voltage | V_{RWM} | - | 45 | V |
| Max. Average Forward | I _{F(AV)} | 50% duty cycle, rectangular | 45 | Α |
| Current Max. Average Forward Current | I _{F(AV)} | wave form (Single/Doubler) 50% duty cycle, rectangular wave form (Common Cathode/Common Anode) | 45 | А |
| Max. Peak One Cycle Non- Repetitive Surge Current | I _{FSM} | 8.3 ms, half Sine wave (per leg) | 200 | Α |
| Max. Thermal Resistance | $R_{\theta JC}$ | (Single) | 0.60 | °C/W |
| Max. Thermal Resistance | $R_{\theta JC}$ | (Common Cathode/Common Anode/Doubler) (per leg) | 0.30 | °C/W |
| Max. Junction Temperature | TJ | - | -65 to +150 | °C |
| Max. Storage Temperature | T _{stg} | - | -65 to +150 | °C |

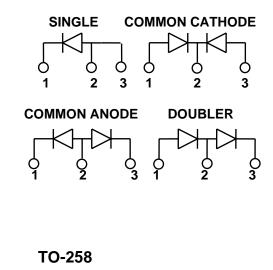
Electrical Characteristics:

| Characteristics | Symbol | Condition | Max. | Units |
|---------------------------|-----------------|--|------|-------|
| Max. Forward Voltage Drop | V_{F1} | @ 45A, Pulse, T _J = 25 °C | 0.78 | V |
| | | (per leg) | | |
| | V_{F2} | @ 45A, Pulse, T _J = 125 °C | 0.69 | V |
| | | (per leg) | | |
| Max. Reverse Current | I _{R1} | @V _R = 45V, Pulse, | 4.5 | mA |
| | | T _J = 25 °C (per leg) | | |
| | I_{R2} | @V _R = 45V, Pulse, | 210 | mA |
| | | T _J = 125 °C (per leg) | | |
| Max. Junction Capacitance | Ст | $@V_R = 5V, T_C = 25 ^{\circ}C$ | 2400 | pF |
| | | $f_{SIG} = 1MHz,$ | | |
| | | $V_{SIG} = 50 \text{mV (p-p) (per leg)}$ | | |

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Mechanical Dimensions: In Inches / mm

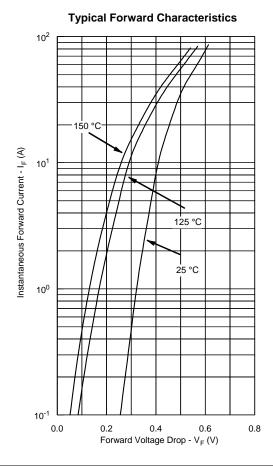




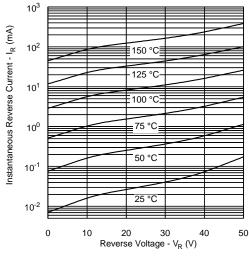
PINOUT TABLE

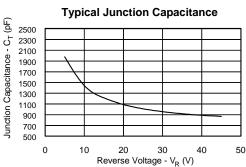
| TYPE | PIN 1 | PIN 2 | PIN 3 |
|------------------------------------|-----------|----------------|-----------|
| SINGLE RECTIFIER | CATHODE | ANODE | ANODE |
| DUAL RECTIFIER, COMMON CATHODE (P) | ANODE 1 | COMMON CATHODE | ANODE 2 |
| DUAL RECTIFIER, COMMON ANODE (N) | CATHODE 1 | COMMON ANODE | CATHODE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

Note: The V_f curves shown are for the SD200SA45 un-packaged die only.



Typical Reverse Characteristics







TECHNICAL DATA

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