
SEMICONDUCTOR

TECHNICAL DATA
DATASHEET 4301, REV. -

HERMETIC POWER SCHOTTKY RECTIFIER

Ultra Low Reverse Leakage 200°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
- Out Performs 100 Volt Ultrafast Rectifiers
- Available with Ceramic Seals

Maximum Ratings:

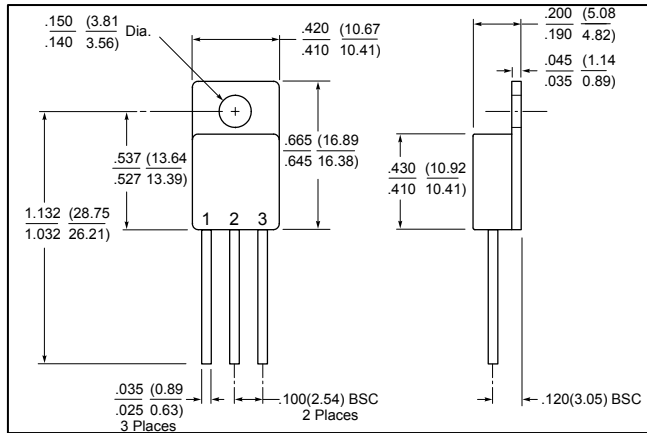
Characteristics	Symbol	Condition	Max.	Units
Peak Inverse Voltage	V_{RWM}	-	100	V
Max. Average Forward Current	$I_{F(AV)}$	50% duty cycle, rectangular wave form	35	A
Max. Peak One Cycle Non-Repetitive Surge Current	I_{FSM}	8.3 ms, half Sine wave	150	A
Max. Junction Temperature	T_J	-	-65 to +200	°C
Max. Storage Temperature	T_{stg}	-	-65 to +175	°C
Max. Thermal Resistance	$R_{\theta JC}$	-	0.60	°C/W

Electrical Characteristics:

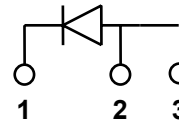
Characteristics	Symbol	Condition	Max.	Units
Max. Forward Voltage Drop	V_{F1}	@ 35A, Pulse, $T_J = 25\text{ °C}$	1.02	V
	V_{F2}	@ 35A, Pulse, $T_J = 125\text{ °C}$	0.84	V
Max. Reverse Current	I_{R1}	@ $V_R = 100V$, Pulse, $T_J = 25\text{ °C}$	0.30	mA
	I_{R2}	@ $V_R = 100V$, Pulse, $T_J = 125\text{ °C}$	3.0	mA
Max. Junction Capacitance	C_T	@ $V_R = 5V$, $T_C = 25\text{ °C}$ $f_{SIG} = 1MHz$, $V_{SIG} = 50mV$ (p-p)	1500	pF

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MECHANICAL DIMENSIONS: In Inches / mm



ELECTRICAL SCHEMATIC

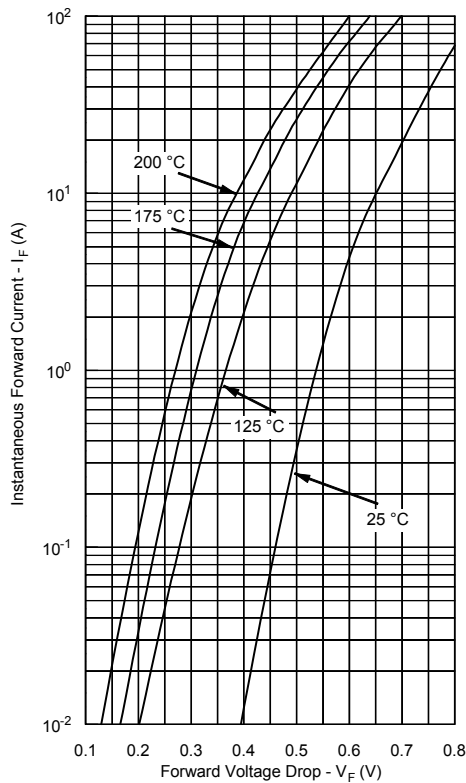


PINOUT TABLE

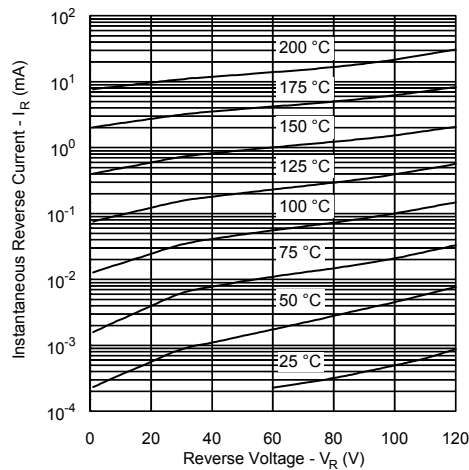
DEVICE TYPE	PIN 1	PIN 2	PIN 3
SCHOTTKY RECTIFIER	CATHODE	ANODE	ANODE

Curves are given for unpackaged die.

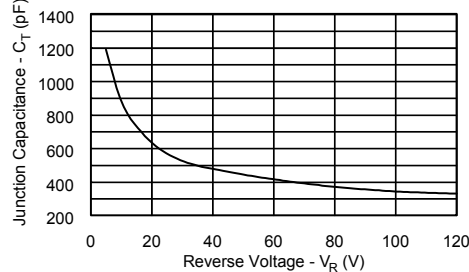
Typical Forward Characteristics



Typical Reverse Characteristics



Typical Junction Capacitance



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