

TECHNICAL DATA  
DATA SHEET 4083, 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:**

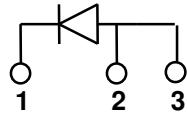
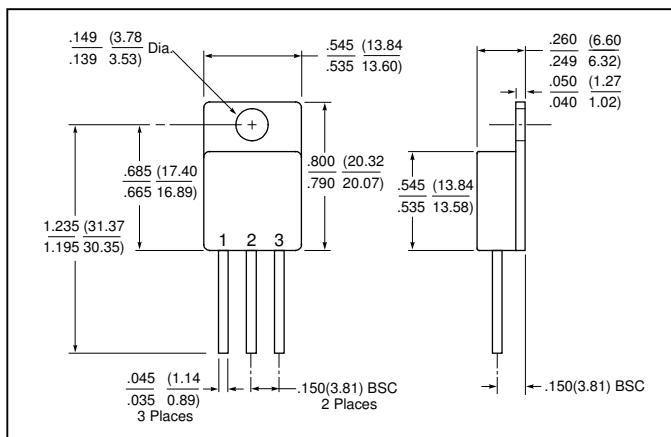
Characteristics	Symbol	Condition	Max.	Units
Peak Inverse Voltage	$V_{RWM}$	-	100	V
Max. Average Forward Current	$I_{F(AV)}$	50% duty cycle, rectangular wave form	30	A
Max. Peak One Cycle Non-Repetitive Surge Current	$I_{FSM}$	8.3 ms, half Sine wave	200	A
Max. Junction Temperature	$T_J$	-	-65 to +200	°C
Max. Storage Temperature	$T_{stg}$	-	-65 to +175	°C
Max. Thermal Resistance	$R_{\theta JC}$	-	0.77	°C/W

**Electrical Characteristics:**

Characteristics	Symbol	Condition	Max.	Units
Max. Forward Voltage Drop	$V_{F1}$	@ 30A, Pulse, $T_J = 25$ °C	1.01	V
	$V_{F2}$	@ 30A, Pulse, $T_J = 125$ °C	0.85	V
Max. Reverse Current	$I_{R1}$	@ $V_R = 100V$ , Pulse, $T_J = 25$ °C	0.20	mA
	$I_{R2}$	@ $V_R = 100V$ , Pulse, $T_J = 125$ °C	2.0	mA
Max. Junction Capacitance	$C_T$	@ $V_R = 5V$ , $T_C = 25$ °C $f_{SIG} = 1MHz$ , $V_{SIG} = 50mV$ (p-p)	1000	pF

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**MECHANICAL DIMENSIONS: In Inches / mm**



**SINGLE**

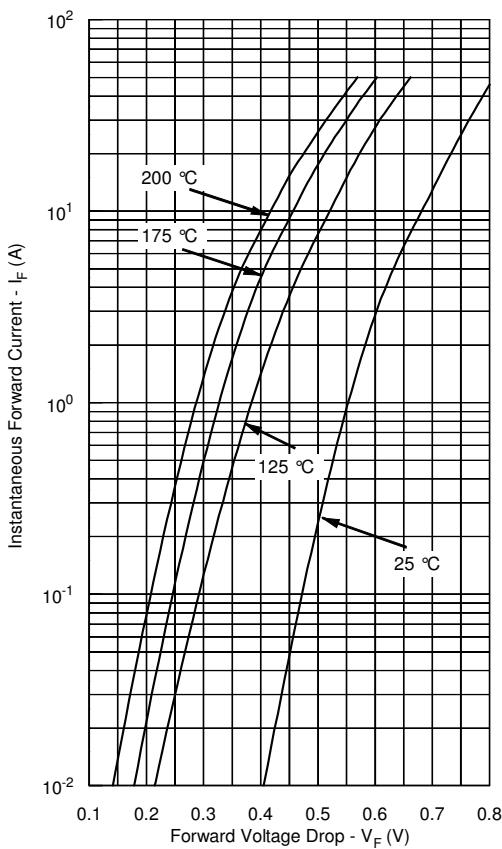
**TO-254**

**PINOUT TABLE**

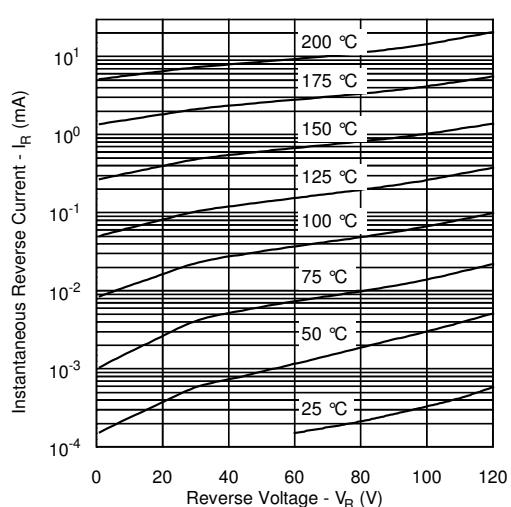
DEVICE TYPE	PIN 1	PIN 2	PIN 3
SCHOTTKY RECTIFIER IN A TO-254 PACKAGE	CATHODE	ANODE	ANODE

Curves are given for unpackaged die.

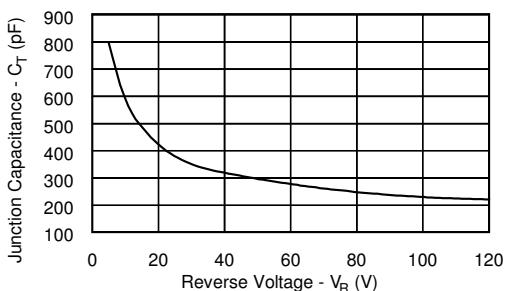
**Typical Forward Characteristics**



**Typical Reverse Characteristics**



**Typical Junction Capacitance**



**TECHNICAL DATA**

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