

TECHNICAL DATA DATA SHEET 4787, REV. A

# SILICON 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
- 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	$V_{RWM}$	-	200	V
Max. Average Forward Current	$I_{F(AV)}$	50% duty cycle, rectangular wave form	16	Α
Max. Peak One Cycle Non- Repetitive Surge Current	I <sub>FSM</sub>	8.3 ms, half Sine wave	75	Α
Max. Junction Temperature	T <sub>J</sub>	-	-65 to +200	°C
Max. Storage Temperature	T <sub>stg</sub>	-	-65 to +200	°C
Thermal Resistance	R <sub>e,IC</sub>	-	0.77	°C/W

## **Electrical Characteristics:**

Characteristics	Symbol	Condition	Max.	Units
Max. Forward Voltage Drop	$V_{F1}$	@ 16A, Pulse, T <sub>J</sub> = 25 °C	0.96	V
	$V_{F2}$	@ 16A, Pulse, T <sub>J</sub> = 125 °C	0.80	V
Max. Reverse Current	$I_{R1}$ @ $V_R = 200V$ , Pulse,		0.030	mA
		$T_J = 25  ^{\circ}C$		
	I <sub>R2</sub>	@V <sub>R</sub> = 200V, Pulse,	2.0	mA
		T <sub>J</sub> = 125 °C		
Max. Junction Capacitance C <sub>T</sub>		$@V_R = 5V, T_C = 25  ^{\circ}C$	600	pF
		$f_{SIG} = 1MHz,$		
		$V_{SIG} = 50 \text{mV (p-p)}$		

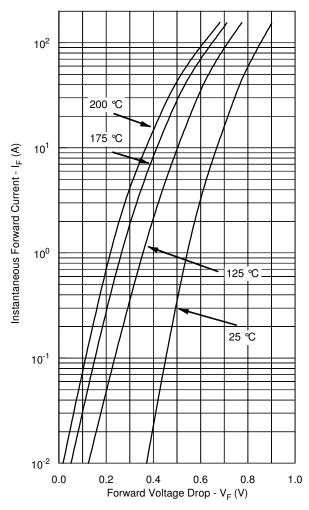
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#### Mechanical Dimensions: In Inches / mm .150 (3.81 Dia. .420 (10.67 .410 10.41) .190 4.82) .045 (1.14 .035 0.89) .665 (16.89 .537 (13.64 .645 16.38) .430 (10.92 .527 13.39) .410 10.41) 1.132 (28.75 1.032 (26.21) .035 (0.89 00(2.54) BSC 2 Places -.120(3.05) BSC .025 0.63)

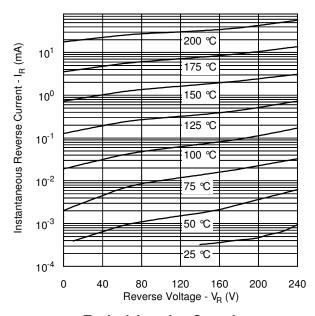
**TO-257** 

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

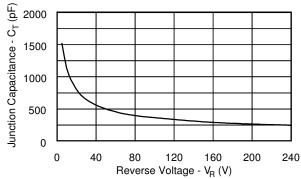
# **Typical Forward Characteristics**



# Typical Reverse Characteristics



# **Typical Junction Capacitance**



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