

TECHNICAL DATA  
DATA SHEET 4785, REV. B**SILICON SCHOTTKY RECTIFIER**  
**Ultra Low Reverse Leakage**  
**175°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

**Maximum Ratings:**

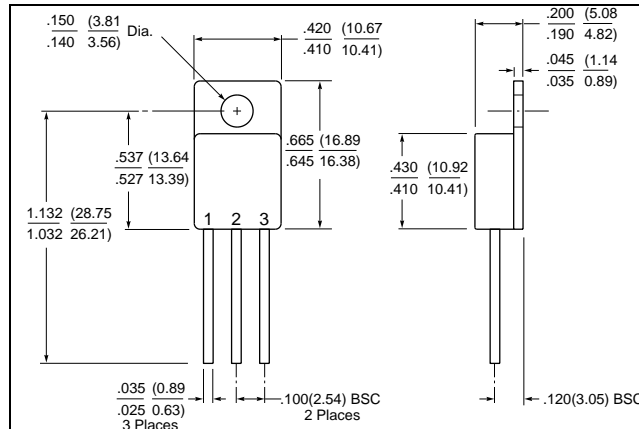
Characteristics	Symbol	Condition	Max.	Units
Peak Inverse Voltage	$V_{RWM}$	-	45	V
Max. Average Forward Current	$I_{F(AV)}$	50% duty cycle, rectangular wave form	16	A
Max. Peak One Cycle Non-Repetitive Surge Current	$I_{FSM}$	8.3 ms, half Sine wave	75	A
Max. Junction Temperature	$T_J$	-	-65 to +175	°C
Max. Storage Temperature	$T_{stg}$	-	-65 to +175	°C
Thermal Resistance (per leg)	$R_{\theta JC}$	-	1.5	°C/W

**Electrical Characteristics:**

Characteristics	Symbol	Condition	Max.	Units
Max. Forward Voltage Drop	$V_{F1}$	@ 16A, Pulse, $T_J = 25\text{ °C}$	0.64	V
	$V_{F2}$	@ 16A, Pulse, $T_J = 125\text{ °C}$	0.54	V
Max. Reverse Current	$I_{R1}$	@ $V_R = 45\text{V}$ , Pulse, $T_J = 25\text{ °C}$	0.8	mA
	$I_{R2}$	@ $V_R = 45\text{V}$ , Pulse, $T_J = 125\text{ °C}$	30	mA
Max. Junction Capacitance	$C_T$	@ $V_R = 5\text{V}$ , $T_C = 25\text{ °C}$ $f_{SIG} = 1\text{MHz}$ , $V_{SIG} = 50\text{mV (p-p)}$	1600	pF

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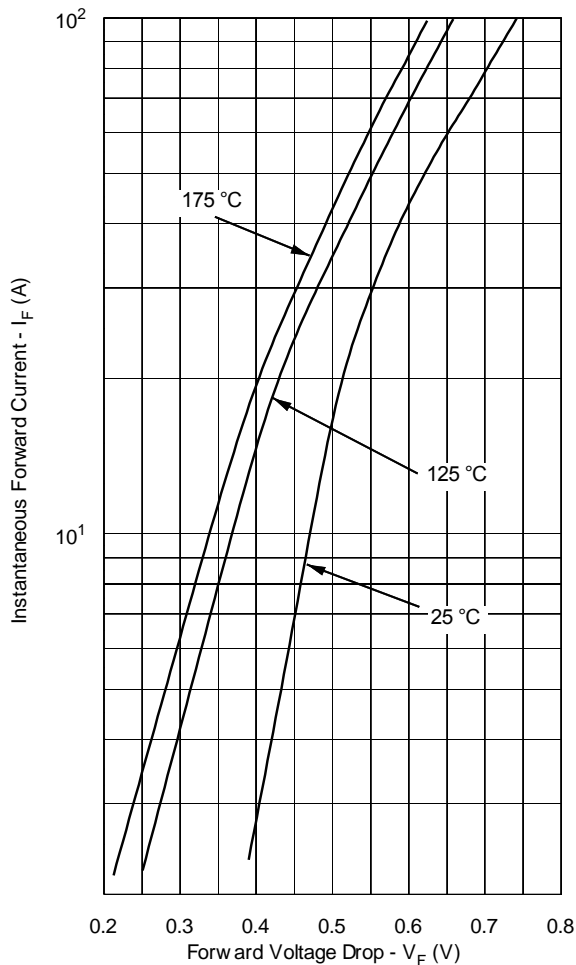
Mechanical Dimensions: In Inches / mm



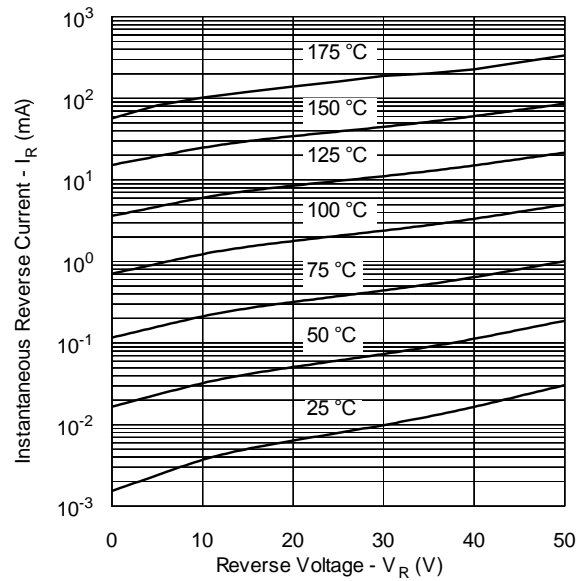
**TO-257**

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

Typical Forward Characteristics



Typical Reverse Characteristics



Typical Junction Capacitance

