

TECHNICAL DATA DATA SHEET 6081, REV. B

# SILICON SCHOTTKY RECTIFIER Low Reverse Leakage 175°C Operating Temperature

### **Applications:**

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

#### Features:

- 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 <sub>RWM</sub>	-	200	V
Max. Average Forward Current	I <sub>F(AV)</sub>	50% duty cycle, rectangular wave form (Single/Doubler)	15	А
Max. Average Forward Current	I <sub>F(AV)</sub>	50% duty cycle, rectangular wave form (Common Cathode/Common Anode)	15	A
Max. Peak One Cycle Non- Repetitive Surge Current	I <sub>FSM</sub>	8.3 ms, half Sine wave	75	Α
Max. Junction Temperature	TJ	-	-65 to +175	°C
Max. Storage Temperature	T <sub>stg</sub>	-	-65 to +175	°C
Thermal Resistance(per leg)	R <sub>θ</sub> JC	-	2.82	°C/W

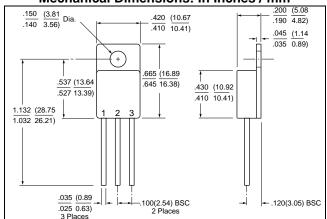
#### **Electrical Characteristics:**

Characteristics	Symbol	Condition	Max.	Units
Max. Forward Voltage Drop	V <sub>F1</sub>	@ 15A, Pulse, T <sub>J</sub> = 25 °C	1.01	V
	V <sub>F2</sub>	@ 15A, Pulse, T <sub>J</sub> = 125 °C	0.9	V
Max. Reverse Current	I <sub>R1</sub>	@V <sub>R</sub> = 200V, Pulse,	0.2	mA
		T <sub>J</sub> = 25 °C		
	I <sub>R2</sub>	@V <sub>R</sub> = 200V, Pulse,	2.0	mA
		T <sub>J</sub> = 125 °C		
Max. Junction Capacitance	Ст	@V <sub>R</sub> = 5V, T <sub>C</sub> = 25 °C	330	pF
		fsig = 1MHz,		
		$V_{SIG} = 50 \text{mV (p-p)}$		

#### **SENSITRON**

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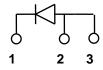
### **Mechanical Dimensions: In Inches / mm**

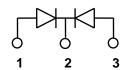


**TO-257** 

**SINGLE** 

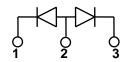
**COMMON CATHODE** 

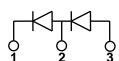




**COMMON ANODE** 

**DOUBLER** 

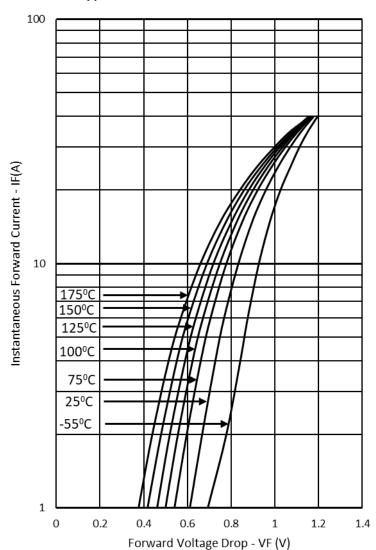




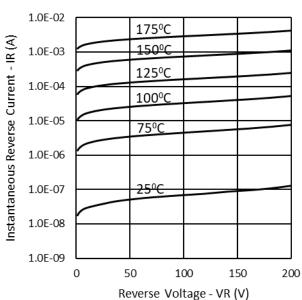
DEVICE TYPE	PIN 1	PIN 2	PIN 3
SINGLE RECTIFIER	CATHODE	ANODE	ANODE
COMMON CATHODE (P)	ANODE 1	COMMON CATHODE	ANODE 2
COMMON ANODE (N)	CATHODE 1	COMMON ANODE	CATHODE 2
DOUBLER (D)	ANODE	CATHODE / ANODE	CATHODE

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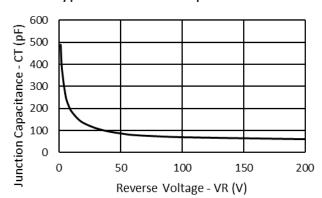
# **Typical Forward Characteristics**



# Typical Reverse Characteristics



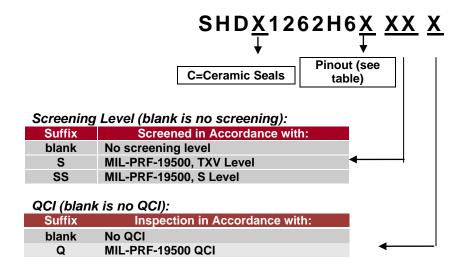
# Typical Junction Capacitance



#### **SENSITRON**

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