

TECHNICAL DATA DATA SHEET 4776, REV. C

# HERMETIC POWER SCHOTTKY RECTIFIER Low Forward Voltage

# **Applications:**

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

## Features:

- 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
- Add "C" for ceramic seals (SHDC),

## **Maximum Ratings:**

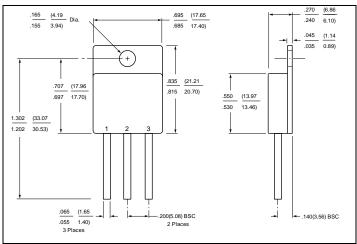
Characteristics	Symbol	Condition	Max.	Units
Peak Inverse Voltage	$V_{RWM}$	-	150	V
Max. Average Forward Current	I <sub>F(AV)</sub>	50% duty cycle, rectangular wave form (Single/Doubler)	45	Α
Max. Average Forward Current	I <sub>F(AV)</sub>	50% duty cycle, rectangular wave form (Common Cathode/Common Anode)	45	A
Max. Peak One Cycle Non- Repetitive Surge Current	I <sub>FSM</sub>	8.3 ms, half Sine wave (per leg)	225	А
Max. Thermal Resistance	$R_{ heta JC}$	Per package	1.15	°C/W
Max. Junction Temperature	T <sub>J</sub>	-	-65 to +175	°C
Max. Storage Temperature	T <sub>stg</sub>	-	-65 to +175	°C

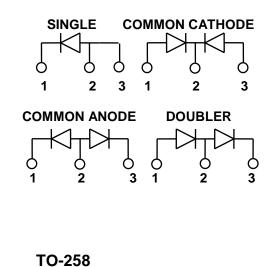
## **Electrical Characteristics:**

Characteristics	Symbol	Condition	Max.	Units
Max. Forward Voltage Drop	V <sub>F1</sub>	@ 45A, Pulse, T <sub>J</sub> = 25 °C	1.14	V
		(per leg)		
	$V_{F2}$	@ 45A, Pulse, T <sub>J</sub> = 125 °C	1.06	V
		(per leg)		
Max. Reverse Current	I <sub>R1</sub>	@V <sub>R</sub> = 150V, Pulse,	1.5	mA
		$T_J = 25 ^{\circ}\text{C} \text{ (per leg)}$		
	$I_{R2}$	@V <sub>R</sub> = 150V, Pulse,	24	mA
		T <sub>J</sub> = 125 °C (per leg)		
Max. Junction Capacitance	Ст	$@V_R = 5V, T_C = 25  ^{\circ}C$	1500	pF
		$f_{SIG} = 1MHz$ ,		
		$V_{SIG} = 50 \text{mV (p-p) (per leg)}$		

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## Mechanical Dimensions: In Inches / mm

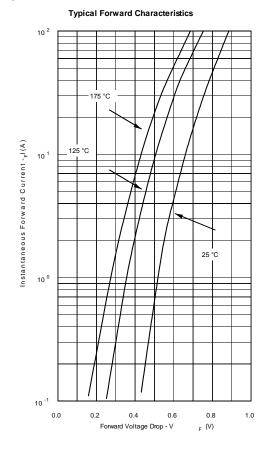


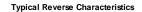


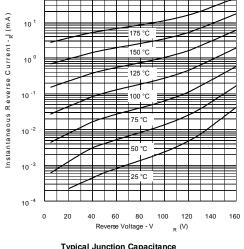
## **PINOUT TABLE**

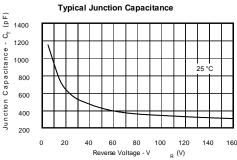
TYPE	PIN 1	PIN 2	PIN 3
SINGLE RECTIFIER	CATHODE	ANODE	ANODE
DUAL RECTIFIER, COMMON CATHODE (P)	ANODE 1	COMMON CATHODE	ANODE 2
DUAL RECTIFIER, COMMON ANODE (N)	CATHODE 1	COMMON ANODE	CATHODE 2
DUAL RECTIFIER, DOUBLER (D)	ANODE	CATHODE/ANODE	CATHODE

**Note:** The V<sub>f</sub> curves shown are for the SD200SC150 un-packaged die only.









#### **SENSITRON**

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