

TECHNICAL DATA DATA SHEET 885, REV. B

# SILICON SCHOTTKY RECTIFIER DIE Very Low Forward Voltage Drop

## **Applications:**

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

#### Features:

- 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
- Electrically / Mechanically Stable during and after Packaging

## **Maximum Ratings**<sup>(1)</sup>:

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 15 wave form		Α
Max. Peak One Cycle Non- Repetitive Surge Current	I <sub>FSM</sub>	8.3 ms, half Sine wave	280	Α
Max. Junction Temperature	TJ	-	-65 to +200	°C
Max. Storage Temperature	T <sub>stg</sub>	-	-65 to +200	°C

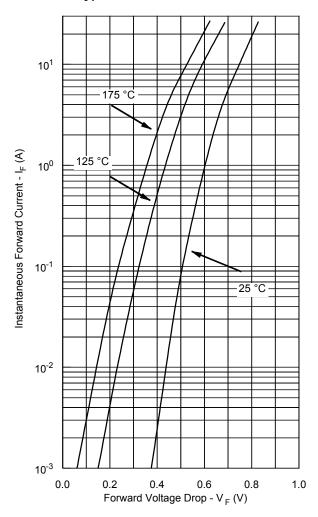
#### Electrical Characteristics(1):

Characteristics	Symbol	Condition	Max.	Units
Max. Forward Voltage Drop	$V_{F1}$	@ 15A, Pulse, T <sub>J</sub> = 25 °C	0.84	V
	$V_{F2}$	@ 15A, Pulse, T <sub>J</sub> = 125 °C	0.68	V
Max. Reverse Current	I <sub>R1</sub>	@V <sub>R</sub> = 150V, Pulse,	500	μΑ
		T <sub>J</sub> = 25 °C		
	I <sub>R2</sub>	@V <sub>R</sub> = 150V, Pulse,	8	mA
		T <sub>J</sub> = 125 °C		
Max. Junction Capacitance	C <sub>T</sub>	$@V_R = 5V, T_C = 25  ^{\circ}C$	500	pF
		$f_{SIG} = 1MHz,$		
		$V_{SIG} = 50 \text{mV (p-p)}$		

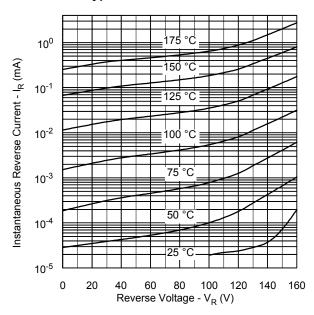
(1) in SHD package

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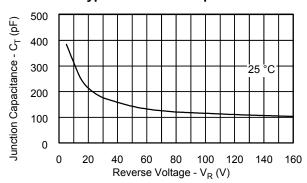
## **Typical Forward Characteristics**



## **Typical Reverse Characteristics**

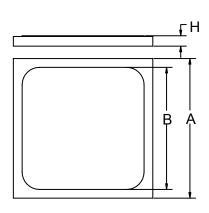


#### **Typical Junction Capacitance**



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



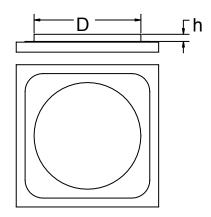


Figure 1

Figure 2

A	В	D	Н	h
0.125±0.003	0.116±0.003	$0.070\pm0.005$	0.0155±0.001	0.010±0.002

Top side(Anode) metallization:

A = A1 - 25 kÅ minimum, Figure 1

B = Ag - 30 kÅ minimum, Figure 1

C = Au - 12 kÅ min, Figure 2

Bottom side (Cathode) metallization: A, B, C = Ti/Ni/Ag - 30 kÅ minimum.

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