

TECHNICAL DATA
DATA SHEET 4111, REV A

SILICON SCHOTTKY RECTIFIER DIE

Very Low Forward Voltage Drop (150 °C T_J Operation)

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

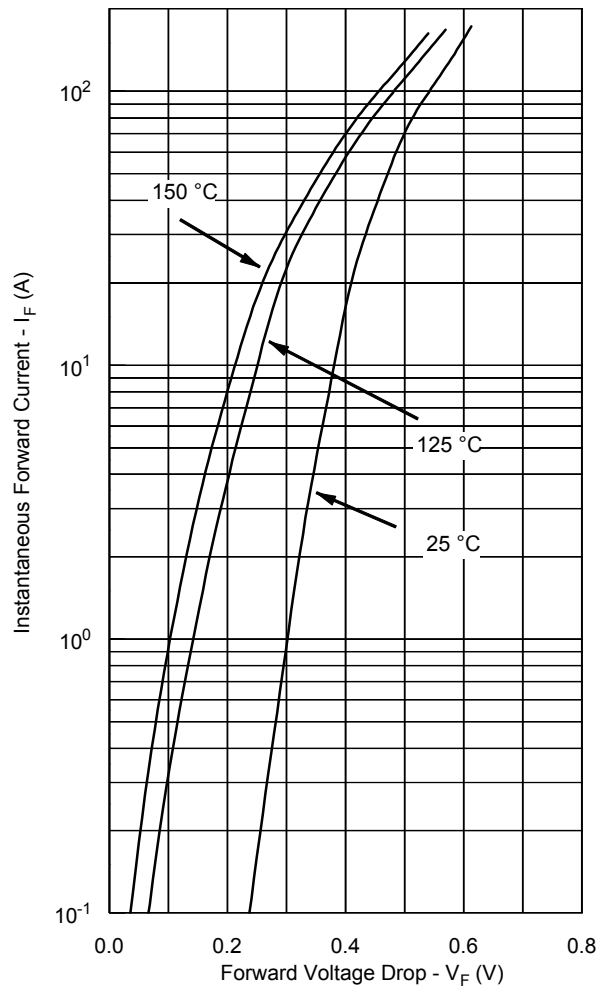
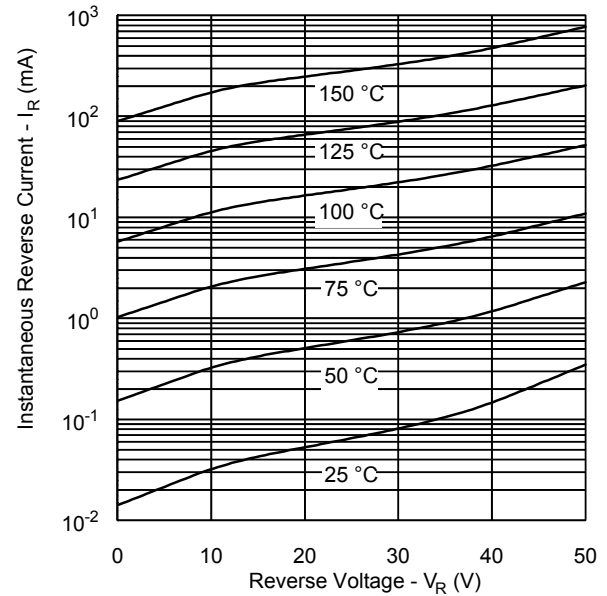
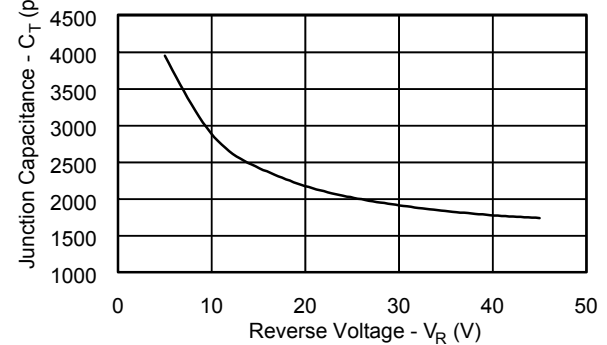
Maximum Ratings (in SHD package):

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	120	A
Max. Peak One Cycle Non-Repetitive Surge Current	I _{FSM}	8.3 ms, half Sine wave	1650	A
Non-Repetitive Avalanche Energy	E _{AS}	T _J = 25 °C, I _{AS} = 11 A, L = 1.2 mH	76	mJ
Repetitive Avalanche Current	I _{AR}	I _{AS} decay linearly to 0 in 1 μs f limited by T _J max V _A =1.5V _R	11	A
Max. Junction Temperature	T _J	-	-65 to +150	°C
Max. Storage Temperature	T _{stg}	-	-65 to +150	°C

Electrical Characteristics⁽¹⁾:

Characteristics	Symbol	Condition	Max.	Units
Max. Forward Voltage Drop	V _{F1}	@ 120A, Pulse, T _J = 25 °C	0.60	V
	V _{F2}	@ 120A, Pulse, T _J = 125 °C	0.57	V
Max. Reverse Current	I _{R1}	@V _R = 45V, Pulse, T _J = 25 °C	9.0	mA
	I _{R2}	@V _R = 45V, Pulse, T _J = 125 °C	420	mA
Max. Junction Capacitance	C _T	@V _R = 5V, T _C = 25 °C f _{SIG} = 1MHz, V _{SIG} = 50mV (p-p)	4800	pF

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Typical Forward Characteristics

Typical Reverse Characteristics

Typical Junction Capacitance


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Mechanical Dimensions: In Inches / mm

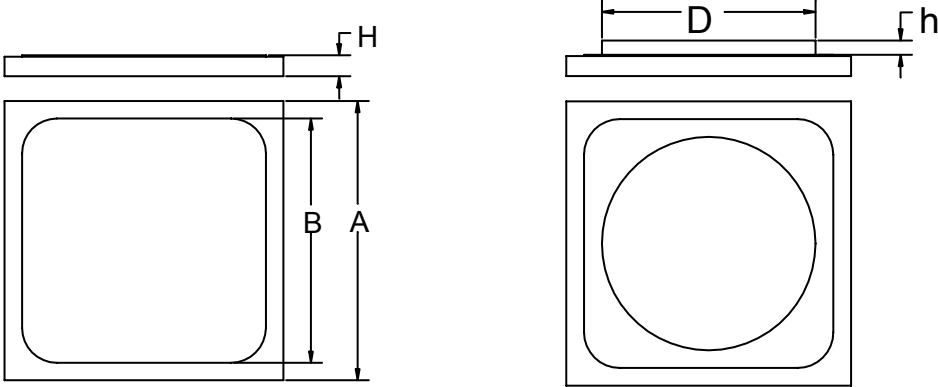


Figure 1

Figure 2

A	B	D	H	h
0.275±0.003	0.267±0.003	0.220±0.005	0.0155±0.001	0.011±0.002

Top side (Anode) metallization:

- A = Al - 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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