

TECHNICAL DATA  
DATA SHEET 242, REV -**SILICON SCHOTTKY RECTIFIER DIE**  
**Ultra Low Reverse Leakage****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
- Electrically / Mechanically Stable during and after packaging
- Out Performs 100 Volt Ultrafast Rectifiers

**Maximum Ratings:**

Characteristics	Symbol	Condition	Max.	Units
Peak Inverse Voltage	$V_{RWM}$	-	100	V
Max. Average Forward Current	$I_{F(AV)}$	50% duty cycle, rectangular wave form	60	A
Max. Peak One Cycle Non-Repetitive Surge Current	$I_{FSM}$	10 ms, Sine pulse <sup>(1)</sup>	720	A
Non-Repetitive Avalanche Energy	$E_{AS}$	$T_J = 25\text{ }^\circ\text{C}$ , $I_{AS} = 1\text{ A}$ , $L = 30\text{mH}$	15	mJ
Repetitive Avalanche Current	$I_{AR}$	$I_{AS}$ decay linearly to 0 in 1 $\mu\text{s}$ $f$ limited by $T_J$ max $V_A=1.5V_R$	1	A
Max. Junction Temperature	$T_J$	-	-55 to +175	$^\circ\text{C}$
Max. Storage Temperature	$T_{stg}$	-	-55 to +175	$^\circ\text{C}$

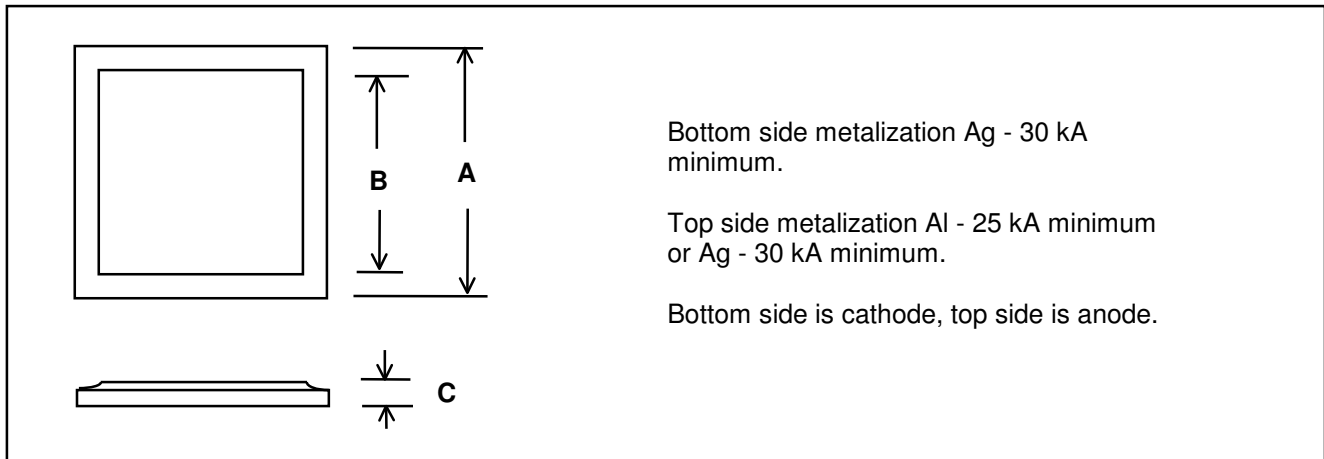
**Electrical Characteristics:**

Characteristics	Symbol	Condition	Max.	Units
Max. Forward Voltage Drop	$V_{F1}$	@ 60A, Pulse, $T_J = 25\text{ }^\circ\text{C}$	0.87	V
	$V_{F2}$	@ 60A, Pulse, $T_J = 125\text{ }^\circ\text{C}$	0.72	V
Max. Reverse Current	$I_{R1}$	@ $V_R = 100\text{V}$ , Pulse, $T_J = 25\text{ }^\circ\text{C}$	30	$\mu\text{A}$
	$I_{R2}$	@ $V_R = 100\text{V}$ , Pulse, $T_J = 125\text{ }^\circ\text{C}$	3.0	mA
Max. Junction Capacitance	$C_T$	@ $V_R = 5\text{V}$ , $T_C = 25\text{ }^\circ\text{C}$ $f_{SIG} = 1\text{MHz}$ , $I_{SIG} = 50\text{mV (p-p)}$	1500	pF

(1) in SHD package

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**Rectifier Die Outlines**



Die Type	Nominal Size (Inches)	A Inches (mm) +/- .003 (.077)	B Inches (mm) +/- .003 (.077)	C Inches (mm) +/- .001 (.026)
SCHOTTKY	.200	.200 (5.08)	.191 (4.85)	.014 (0.36)

**Metalization**

A = Aluminum Top/ Silver Bottom

B = Silver Top/ Silver Bottom

C = Silver Bottom/ Aluminum Plated Molybdenum Tab Top

**TECHNICAL DATA**

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