

TECHNICAL DATA
DATA SHEET 501, REV. A**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

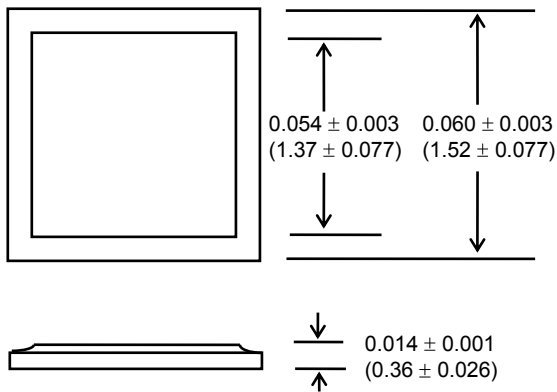
Maximum Ratings:

Characteristics	Symbol	Condition	Max.	Units
Peak Inverse Voltage	V_{RWM}	-	30	V
Max. Average Forward Current	$I_{F(AV)}$	50% duty cycle, rectangular wave form	3	A
Max. Peak One Cycle Non-Repetitive Surge Current	I_{FSM}	8.3 ms, half Sine wave ⁽¹⁾	55	A
Non-Repetitive Avalanche Energy	E_{AS}	$T_J = 25\text{ }^{\circ}\text{C}$, $I_{AS} = 1.3\text{ A}$, $L = 6.7\text{ mH}$	5.6	mJ
Repetitive Avalanche Current	I_{AR}	I_{AS} decay linearly to 0 in $1\text{ }\mu\text{s}$ f limited by T_J max $V_A = 1.5V_R$	1.3	A
Max. Junction Temperature	T_J	-	-65 to +150	$^{\circ}\text{C}$
Max. Storage Temperature	T_{stg}	-	-65 to +150	$^{\circ}\text{C}$

Electrical Characteristics:

Characteristics	Symbol	Condition	Max.	Units
Max. Forward Voltage Drop	V_{F1}	@ 3A, Pulse, $T_J = 25\text{ }^{\circ}\text{C}$	0.49	V
	V_{F2}	@ 3A, Pulse, $T_J = 125\text{ }^{\circ}\text{C}$	0.39	V
Max. Reverse Current	I_{R1}	@ $V_R = 30\text{ V}$, Pulse, $T_J = 25\text{ }^{\circ}\text{C}$	400	μA
	I_{R2}	@ $V_R = 30\text{ V}$, Pulse, $T_J = 125\text{ }^{\circ}\text{C}$	20	mA
Max. Junction Capacitance	C_T	@ $V_R = 5\text{ V}$, $T_C = 25\text{ }^{\circ}\text{C}$ $f_{SIG} = 1\text{ MHz}$, $V_{SIG} = 50\text{ mV (p-p)}$	220	pF

(1) in SHD package

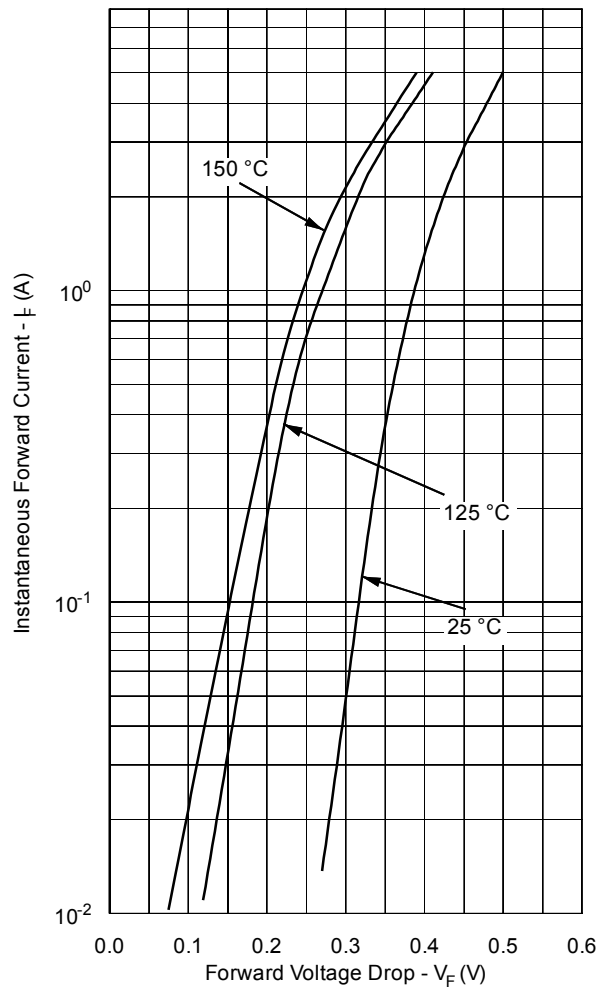
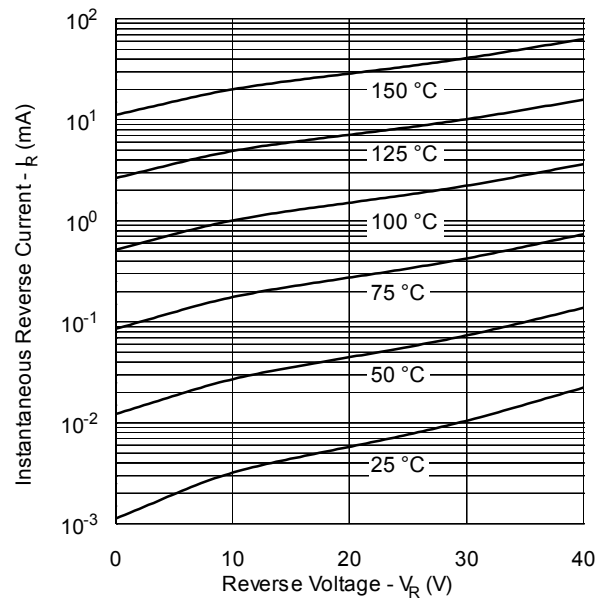
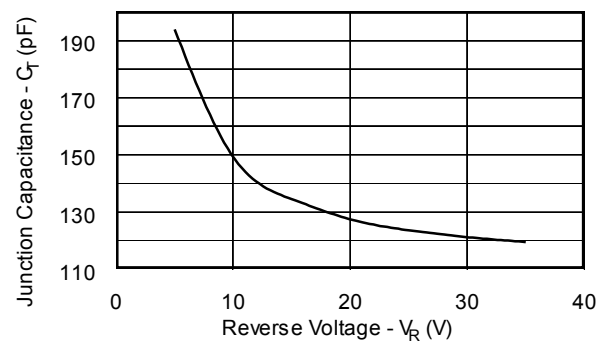
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Mechanical Dimensions: In Inches / mm


Bottom side metalization Ag - 30 kÅ minimum.

Top side metalization Al - 25 kÅ minimum or Ag - 30 kÅ minimum.

Bottom side is cathode, top side is anode.

Gold Option Available for Top and/or Bottom Metalization:
 Ti (1.2 kA) / Ni (1.8 kA) / Au (12kA)

Typical Forward Characteristics

Typical Reverse Characteristics

Typical Junction Capacitance


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