SEMICONDUCTOR

Technical Data Data Sheet 4948, Rev.-

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⁽¹⁾:

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	60	A
Max. Peak One Cycle Non- Repetitive Surge Current	I _{FSM}	8.3 ms, half Sine wave	860	A
Non-Repetitive Avalanche Energy	E _{AS}	$T_J = 25 \ ^{\circ}C, I_{AS} = 8.0 \ A, L = 1.7 \ mH$	54	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	8.0	A
Max. Junction Temperature	TJ	-	-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}	@ 60A, Pulse, T _J = 25 °C	0.60	V
	V _{F2}	@ 60A, Pulse, T _J = 125 °C	0.57	V
Max. Reverse Current	I _{R1}	$@V_R = 45V$, Pulse,	4.5	mA
		$T_J = 25 \ ^{\circ}C$		
	I _{R2}	$@V_R = 45V$, Pulse,	210	mA
		T _J = 125 °C		
Max. Junction Capacitance	CT	$@V_{R} = 5V, T_{C} = 25 \ ^{\circ}C$	2400	pF
		f _{SIG} = 1MHz,		
		$V_{SIG} = 50 \text{mV} \text{ (p-p)}$		

(1) in SHD package

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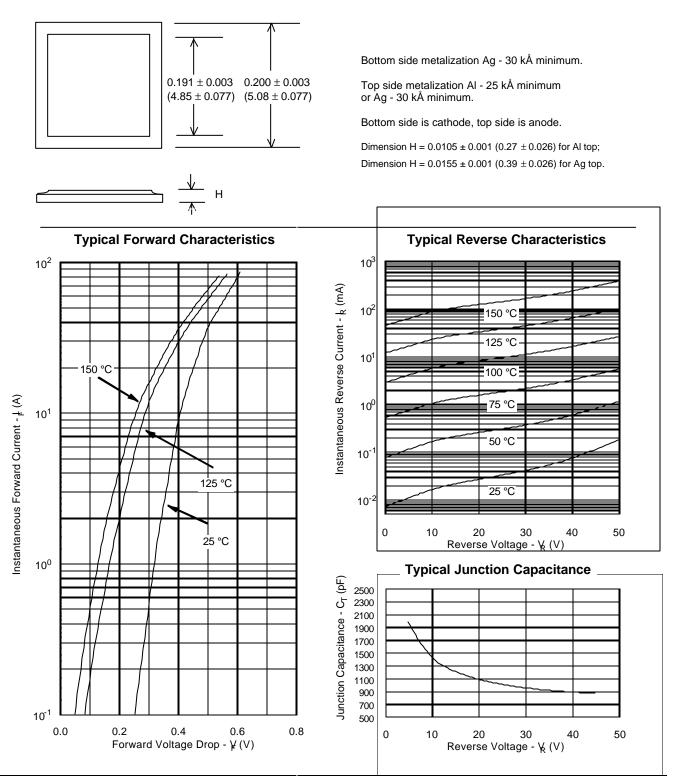
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SD200SA45A/B/C

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Mechanical Dimensions: In Inches / mm





TECHNICAL DATA

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