

TECHNICAL DATA DATA SHEET 4552, REV. A

HERMETIC SCHOTTKY RECTIFIER Very Low Forward Voltage Drop

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

Maximum Ratings

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 (Single)	30	Α
Max. Peak One Cycle Non- Repetitive Surge Current	I _{FSM}	8.3 ms, half Sine wave (per leg)	100	Α
Non-Repetitive Avalanche Energy	E _{AS}	$T_J = 25 ^{\circ}\text{C}, \ I_{AS} = 3.0 \text{A}, \ L = 4.4 \text{mH (per leg)}$	20	mJ
Repetitive Avalanche Current	I _{AR}	I_{AS} decay linearly to 0 in 1 μ s f limited by T_J max V_A =1.5 V_R	3.0	Α
Maximum Thermal Resistance	$R_{ heta JC}$	Single	1.60	°C/W
Max. Junction Temperature	T_J	-	-65 to +150	°C
Max. Storage Temperature	T _{stg}	-	-65 to +150	°C

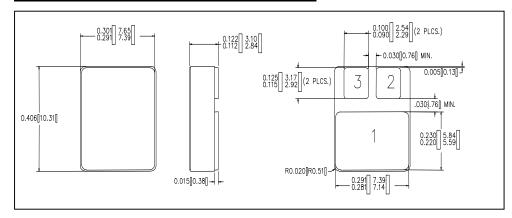
Electrical Characteristics

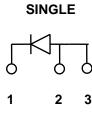
Characteristics	Symbol	Condition	Max.	Units
Max. Forward Voltage Drop	V_{F1}	@ 30A, Pulse, T _J = 25 °C	0.71	V
(per leg)	V_{F2}	@ 30A, Pulse, T _J = 125 °C	0.66	\ \
Max. Reverse Current	I _{R1}	@V _R = 45V, Pulse,	0.1	mA
(per leg)		T _J = 25 °C		
	I_{R2}	$@V_R = 45V$, Pulse,	20	mA
		T _J = 125 °C		
Max. Junction Capacitance	C_T	$@V_R = 5V, T_C = 25 ^{\circ}C$	1300	pF
(per leg)		$f_{SIG} = 1MHz,$		
		$V_{SIG} = 50 \text{mV (p-p)}$		

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Mechanical Dimensions: in Inches / mm

LCC-5





PINOUT TABLE

DEVICE TYPE	PIN 1	PIN 2	PIN 3
SINGLE RECTIFIER	CATHODE	ANODE	ANODE

Note: The V_f curves shown are for the SD125SCU45 unpackaged die only.



TECHNICAL DATA

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