

SEMICONDUCTOR

TECHNICAL DATA
DATA SHEET 4317, REV. -

HERMETIC POWER SCHOTTKY RECTIFIER

Ultra Low Reverse Leakage 200°C Operating Temperature

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
- 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 (Single)	15	A
Max. Average Forward Current	$I_{F(AV)}$	50% duty cycle, rectangular wave form (Common Cathode)	30	A
Max. Peak One Cycle Non-Repetitive Surge Current	I_{FSM}	8.3 ms, half Sine wave (per leg)	200	A
Max. Thermal Resistance	$R_{\theta JC}$	-	6	°C/W
Max. Junction Temperature	T_J	-	-65 to +200	°C
Max. Storage Temperature	T_{stg}	-	-65 to +175	°C

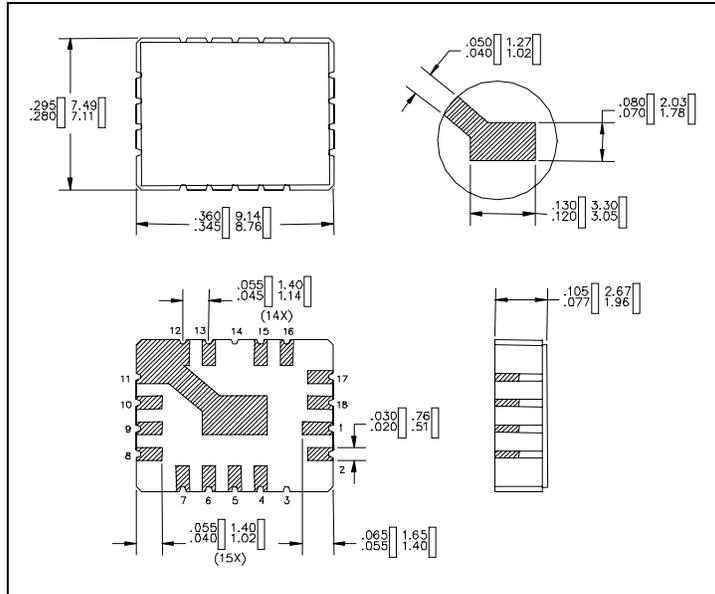
Electrical Characteristics:

Characteristics	Symbol	Condition	Max.	Units
Max. Forward Voltage Drop	V_{F1}	@ 15A, Pulse, $T_J = 25\text{ °C}$ (per leg)	0.93	V
	V_{F2}	@ 15A, Pulse, $T_J = 125\text{ °C}$ (per leg)	0.77	V
Max. Reverse Current	I_{R1}	@ $V_R = 100V$, Pulse, $T_J = 25\text{ °C}$ (per leg)	0.05	mA
	I_{R2}	@ $V_R = 100V$, Pulse, $T_J = 125\text{ °C}$ (per leg)	1.0	mA
Max. Junction Capacitance	C_T	@ $V_R = 5V$, $T_C = 25\text{ °C}$ $f_{SIG} = 1MHz$, $V_{SIG} = 50mV$ (p-p) (per leg)	500	pF

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MECHANICAL DIMENSIONS: IN Inches / mm

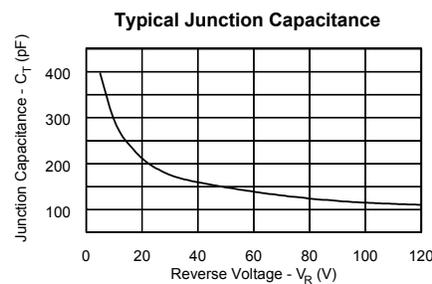
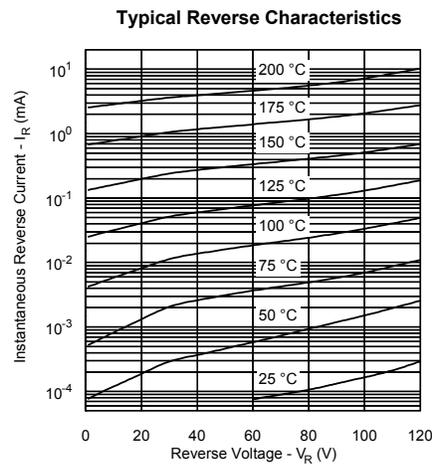
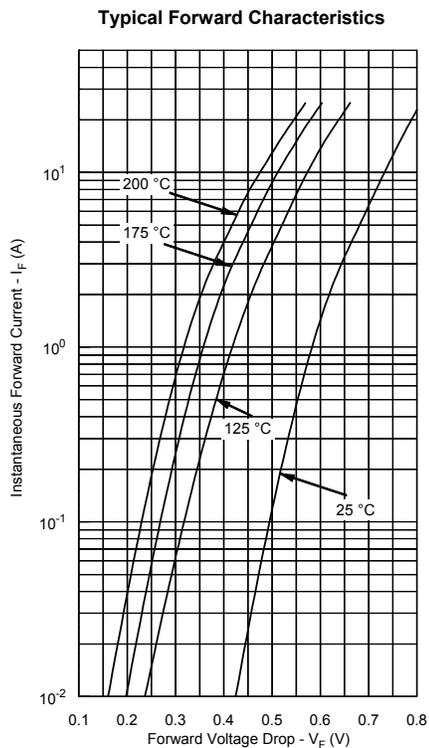


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PINOUT TABLE

DEVICE TYPE	CATHODE	ANODE	No Connection (NC)
SINGLE RECTIFIER	1,2,15,16,17,18	6,7,8,9,10,11,12,13	3,4,5,14
Pins	1,2,15,16,17,18	6,7,8,9,10,11,12,13	3,4,5,14

Note: The V_f curves shown are for the SD125SCU100 unpackaged die only.



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