

HERMETIC POWER SCHOTTKY RECTIFIER

Applications:

- Switching Power Supply • Converters • Free-Wheeling Diodes • Polarity Protection Diode

Features:

- Low Reverse Leakage Current
- 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
- Outperforms 100 Volt Ultrafast Rectifiers

Part Ordering Information:

- SMD-1 Package
- JANTXV Equivalent Screening Option- Add suffix "S"
- JANS Equivalent Screening Option- Add suffix "SS"

MAXIMUM RATINGS

ALL RATINGS ARE @ $T_C = 25^\circ\text{C}$ UNLESS OTHERWISE SPECIFIED.

RATING	SYMBOL	MAX.	UNITS
PEAK INVERSE VOLTAGE	PIV	100	Volts
MAXIMUM DC OUTPUT CURRENT (With Cathode Maintained @ $T_C=100^\circ\text{C}$, 50% duty cycle) (SINGLE) Total Current Limited by Die.	I_o	30	Amps
MAXIMUM DC OUTPUT CURRENT (With Cathode Maintained @ $T_C=100^\circ\text{C}$, 50% duty cycle) (COMMON CATHODE). Current Limited by Device.	I_o	35	Amps
MAXIMUM NONREPETITIVE FORWARD SURGE CURRENT ($t = 8.3\text{ms}$, Sine) (per leg)	I_{FSM}	150	Amps
MAXIMUM JUNCTION CAPACITANCE ($V_r=5\text{V}$) (per leg)	C_T	1000	pF
MAXIMUM THERMAL RESISTANCE (Junction to Mounting Surface, Cathode) (per leg)	$R_{\theta JC}$	1.25	$^\circ\text{C/W}$
MAXIMUM OPERATING TEMPERATURE RANGE	T_{op}	-65 to + 150	$^\circ\text{C}$
MAXIMUM STORAGE TEMPERATURE RANGE	T_{stg}	-65 to + 150	$^\circ\text{C}$
Weight (typ)		1.0	g

SENSITRON
SEMICONDUCTOR

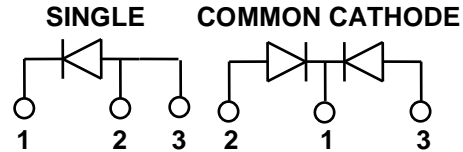
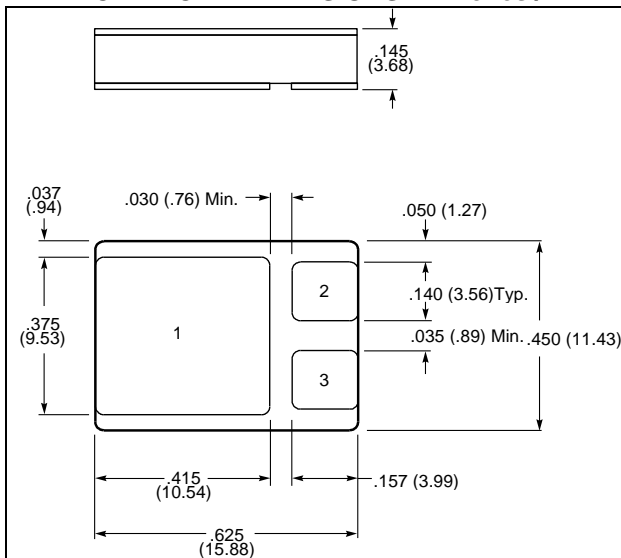
SHD119484
SHD119484P

TECHNICAL DATA
DATA SHEET 6112, Preliminary

ELECTRICAL CHARACTERISTICS

CHARACTERISTIC	SYMBOL	MAX.	UNITS
MAXIMUM FORWARD VOLTAGE DROP, Pulsed (per leg) $T_J = 25\text{ }^\circ\text{C}$, $I_F = 15\text{A}$ $I_F = 30\text{A}$ $I_F = 35\text{A}$ $T_J = 125\text{ }^\circ\text{C}$, $I_F = 15\text{A}$ $I_F = 30\text{A}$ $I_F = 35\text{A}$ $T_J = -55\text{ }^\circ\text{C}$, $I_F = 15\text{A}$ $I_F = 30\text{A}$ $I_F = 35\text{A}$	V_F	0.82 1.01 1.11 0.71 0.92 0.99 0.90 1.05 1.08	Volts
MAXIMUM REVERSE CURRENT (I_r @ 100V PIV) (per leg) $T_J = 25\text{ }^\circ\text{C}$ $T_J = 125\text{ }^\circ\text{C}$	I_r	0.07 40	mA

MECHANICAL DIMENSIONS: In Inches / mm



SMD-1

PINOUT TABLE

TYPE	PIN 1	PIN 2	PIN 3
SINGLE RECTIFIER	CATHODE	ANODE	ANODE
DUAL RECTIFIER, COMMON CATHODE (P)	COMMON CATHODE	ANODE 1	ANODE 2

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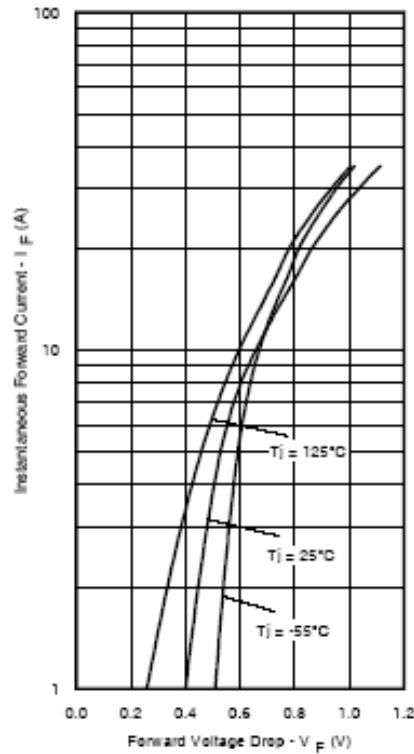


Fig. 1 - Max. Forward Voltage Drop Characteristics (Per Leg)

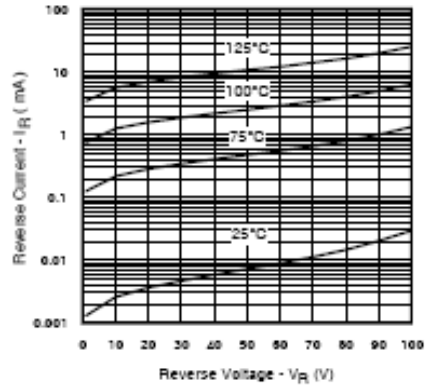


Fig. 2 - Typical Values of Reverse Current Vs. Reverse Voltage (Per Leg)

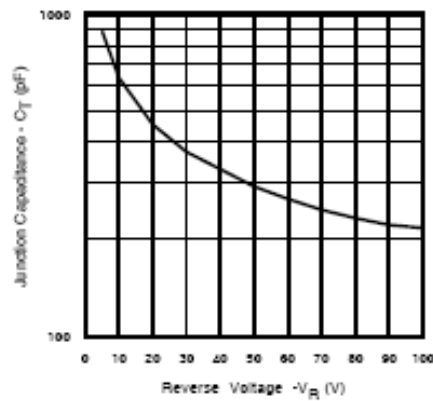


Fig. 3 - Typical Junction Capacitance Vs. Reverse Voltage (Per Leg)

PART ORDERING INFORMATION:

SHD119484 XX X

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Part Number

Screening Level (blank is no screening):

Suffix	Screened in Accordance with:
blank	No screening level
S	MIL-PRF-19500, TXV Level
SS	MIL-PRF-19500, S Level

QCI (blank is no QCI):

Suffix	Inspection in Accordance with:
blank	No QCI
Q	MIL-PRF-19500 QCI

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