

TECHNICAL DATA
DATA SHEET 6111, Preliminary

HERMETIC 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-0.5 Package
- JANTXV Equivalent Screening Option- Add suffix "S"
- JANS Equivalent Screening Option- Add suffix "SS"
- Equivalent to 30CLJQ100

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)	I_o	30 (15*)	Amps
MAXIMUM NONREPETITIVE FORWARD SURGE CURRENT PER LEG (t = 8.3ms, Sine)	I_{FSM}	100	Amps
MAXIMUM JUNCTION CAPACITANCE ($V_r=5\text{V}$) PER LEG	C_T	275	pF
MAXIMUM THERMAL RESISTANCE (Junction to Mounting Surface, Cathode)	$R_{\theta JC}$	1.75 (3.5*)	$^\circ\text{C/W}$
MAXIMUM OPERATING TEMPERATURE RANGE	Top	-65 to + 150	$^\circ\text{C}$
MAXIMUM STORAGE TEMPERATURE RANGE	Tstg	-65 to + 150	$^\circ\text{C}$
Weight (typ)		1.0	g

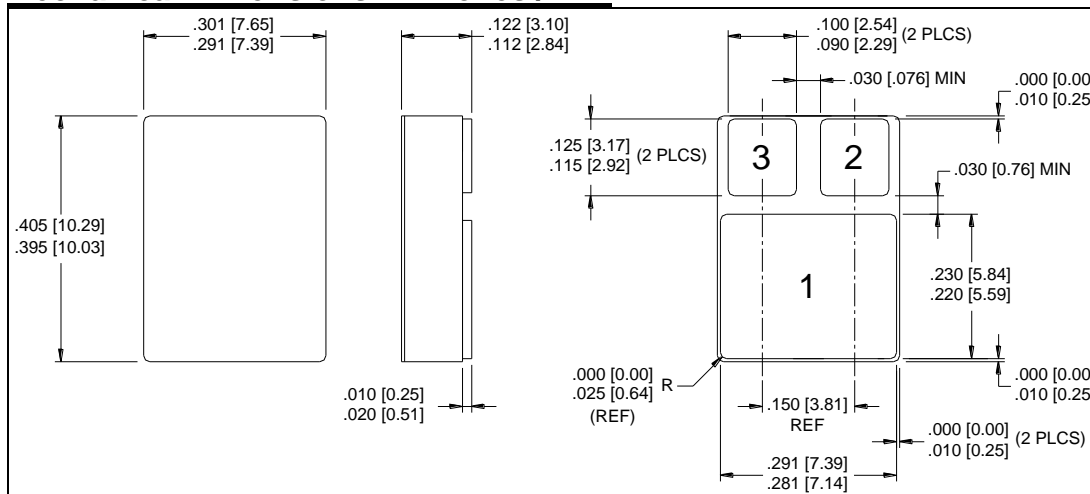
Note: * denotes single die in package (SHD120974)

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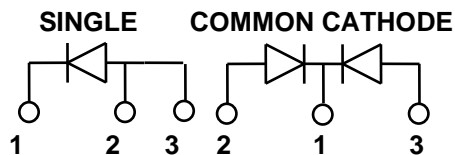
ELECTRICAL CHARACTERISTICS

CHARACTERISTIC	SYMBOL	MAX.	UNITS
MAXIMUM FORWARD VOLTAGE DROP, Pulsed, Per Leg $T_J = 25\text{ }^\circ\text{C}$, $I_F = 5\text{A}$ $I_F = 15\text{A}$ $I_F = 30\text{A}$ $T_J = 125\text{ }^\circ\text{C}$, $I_F = 5\text{A}$ $I_F = 15\text{A}$ $I_F = 30\text{A}$ $T_J = -55\text{ }^\circ\text{C}$, $I_F = 5\text{A}$ $I_F = 15\text{A}$ $I_F = 30\text{A}$	V_F	0.77 1.03 1.27 0.60 0.77 0.95 0.86 1.18 1.43	Volts
MAXIMUM REVERSE CURRENT (I_r @ 100V PIV), Per Leg $T_J = 25\text{ }^\circ\text{C}$ $T_J = 100\text{ }^\circ\text{C}$ $T_J = 125\text{ }^\circ\text{C}$	I_r	0.01 1.19 5	mA

Mechanical Dimensions: in Inches / mm



LCC-5



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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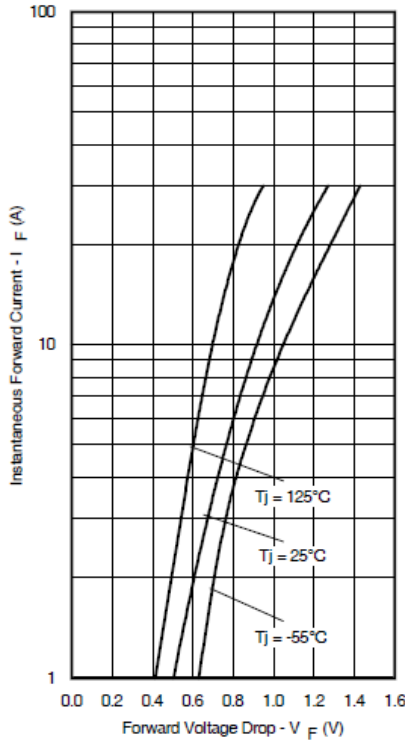


Fig. 1 - Max. Forward Voltage Drop Characteristics (Per Leg)

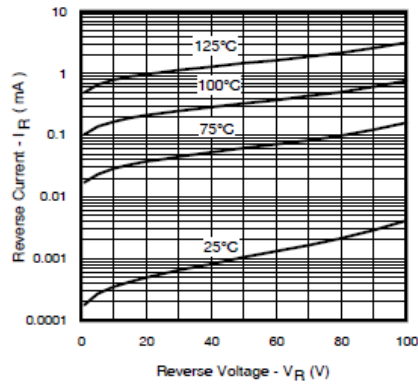


Fig. 2 - Typical Values of Reverse Current Vs. Reverse Voltage (Per Leg)

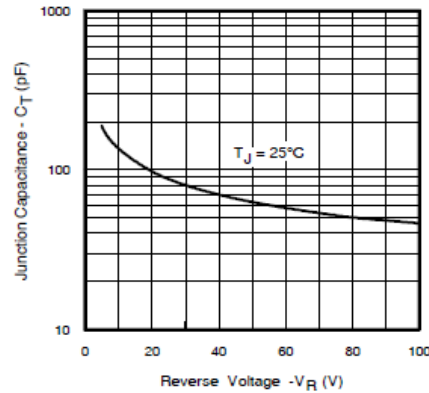


Fig. 3 - Typical Junction Capacitance Vs. Reverse Voltage (Per Leg)

PART ORDERING INFORMATION:

SHD120974 XX X

↓
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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