

TECHNICAL DATA  
DATA SHEET 4564, REV. –

## HERMETIC POWER SCHOTTKY RECTIFIER

### Very Low Forward Voltage Drop

Add Suffix "S" to Part Number for S-100 Screening.

#### 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
- High Surge Capacity
- Guard Ring for Enhanced Durability and Long Term Reliability

**DESCRIPTION:** A 45-VOLT, 3.0 AMP DUAL POWER SCHOTTKY RECTIFIER IN A HERMETIC SHD-4/4A/4B PACKAGE.

#### MAXIMUM RATINGS

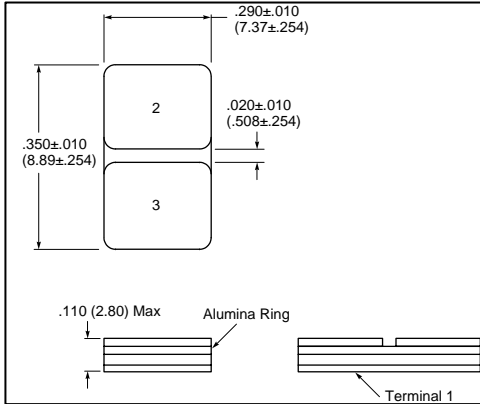
ALL RATINGS ARE @  $T_C = 25\text{ }^\circ\text{C}$  UNLESS OTHERWISE SPECIFIED.

RATING	SYMBOL	MAX.	UNITS
PEAK INVERSE VOLTAGE	PIV	45	Volts
MAXIMUM DC OUTPUT CURRENT (With Cathode Maintained @ $T_C=100\text{ }^\circ\text{C}$ ) (Single)	$I_o$	3.0	Amps
MAXIMUM DC OUTPUT CURRENT With Cathode Maintained (@ $T_C=100\text{ }^\circ\text{C}$ ) (Common Cathode)	$I_o$	6.0	Amps
MAXIMUM NONREPETITIVE FORWARD SURGE CURRENT (t=8.3ms, Sine)	$I_{FSM}$	55	Amps
MAXIMUM THERMAL RESISTANCE (Junction to Mounting Surface, Cathode)	$R_{\theta JC}$	1.8	$^\circ\text{C/W}$
MAXIMUM OPERATING TEMPERATURE RANGE	Top/Tstg	-65 to +150	$^\circ\text{C}$
MAXIMUM STORAGE TEMPERATURE RANGE	Top/Tstg	-65 to +150	$^\circ\text{C}$

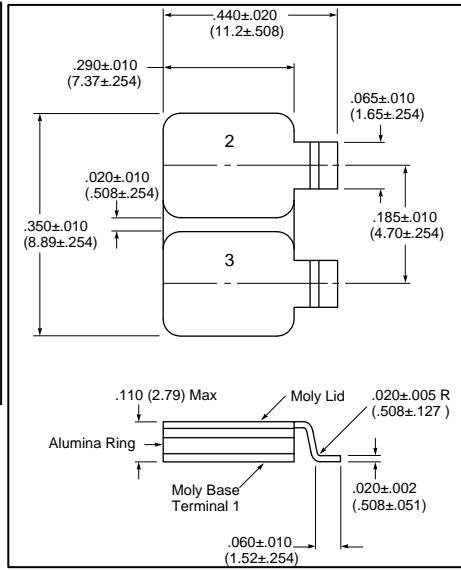
#### ELECTRICAL CHARACTERISTICS

CHARACTERISTIC	SYMBOL	MAX.	UNITS
MAXIMUM FORWARD VOLTAGE DROP, Pulsed ( $I_f = 3.0$ Amps) $T_J = 25\text{ }^\circ\text{C}$ $T_J = 125\text{ }^\circ\text{C}$	$V_f$	0.56 0.51	Volts
MAXIMUM REVERSE CURRENT ( $I_r$ @ 45V PIV) $T_J = 25\text{ }^\circ\text{C}$ $T_J = 125\text{ }^\circ\text{C}$	$I_r$	0.3 14	mA
MAXIMUM JUNCTION CAPACITANCE ( $V_r=5V$ )	$C_T$	220	pF

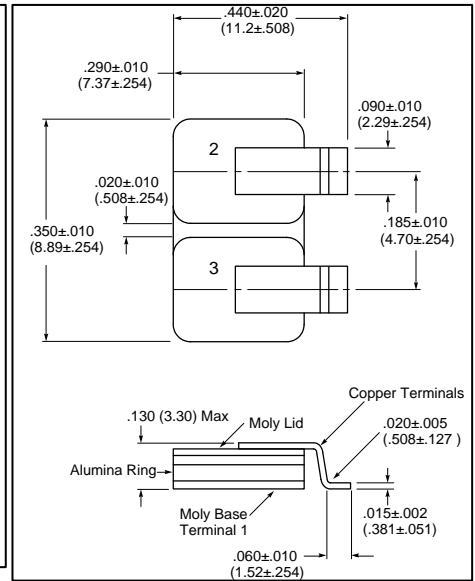
**Mechanical Dimensions: In Inches / mm**



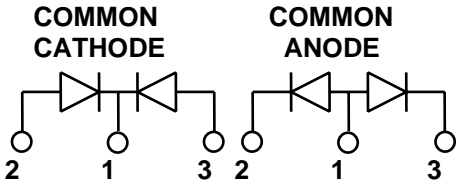
**SHD-4**



**SHD-4A**



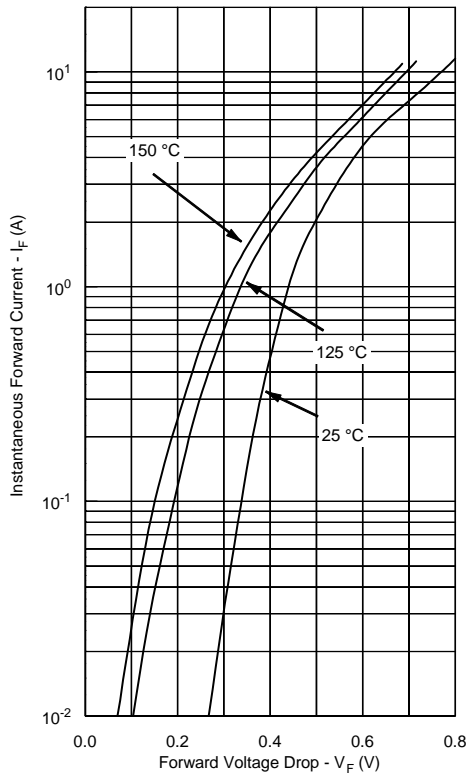
**SHD-4B**



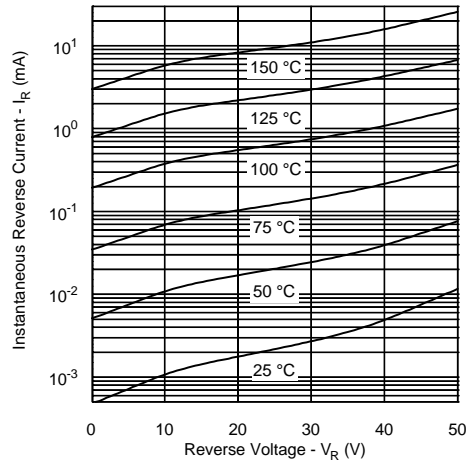
**PINOUT TABLE**

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

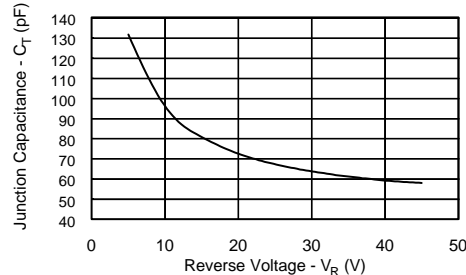
**Typical Forward Characteristics**



**Typical Reverse Characteristics**



**Typical Junction Capacitance**



$V_F @ 1A -55^\circ C \text{ typical} = 0.56V$

**TECHNICAL DATA**

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