

TECHNICAL DATA  
DATA SHEET 4039, REV. B

## POWER SCHOTTKY RECTIFIER Very Low Voltage Drop

**DESCRIPTION:** A DUAL 45-VOLT, 15 AMP POWER SCHOTTKY RECTIFIER IN A HERMETIC SHD-4/4A/4B PACKAGE

### MAXIMUM RATINGS

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

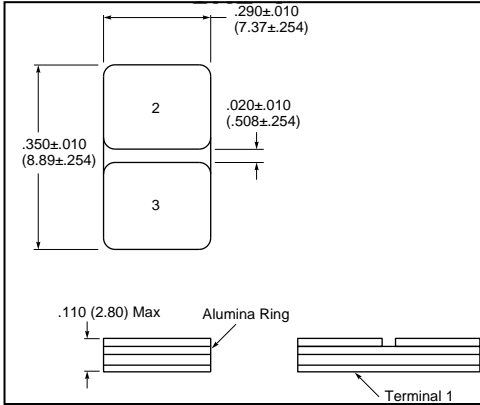
RATING	SYMBOL	MAX.	UNITS
PEAK INVERSE VOLTAGE	PIV	45	Volts
MAXIMUM DC OUTPUT CURRENT (With Cathode Maintained @ $T_C=100^\circ\text{C}$ ) (Common Cathode) (per leg)	$I_o$	15	Amps
MAXIMUM NONREPETITIVE FORWARD SURGE CURRENT ( $t=8.3\text{ms}$ , Sine)	$I_{FSM}$	280	Amps
MAXIMUM JUNCTION CAPACITANCE ( $V_r=5\text{V}$ )	$C_T$	800	pF
MAXIMUM THERMAL RESISTANCE (Junction to Mounting Surface, Cathode)	$R_{\theta JC}$	1.7	$^\circ\text{C/W}$
MAXIMUM OPERATING AND STORAGE TEMPERATURE RANGE	Top/Tstg	-65 to + 175	$^\circ\text{C}$

### ELECTRICAL CHARACTERISTICS

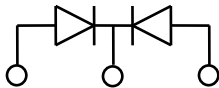
CHARACTERISTIC	SYMBOL	MAX.	UNITS
MAXIMUM FORWARD VOLTAGE DROP, Pulsed ( $I_f = 15\text{Amps}$ ) $T_J = 25^\circ\text{C}$ $T_J = 125^\circ\text{C}$	$V_f$	0.56 0.51	Volts
MAXIMUM REVERSE CURRENT ( $I_r @ 45\text{V}$ ) $T_J = 25^\circ\text{C}$ $T_J = 125^\circ\text{C}$	$I_r$	1.5 70	mA

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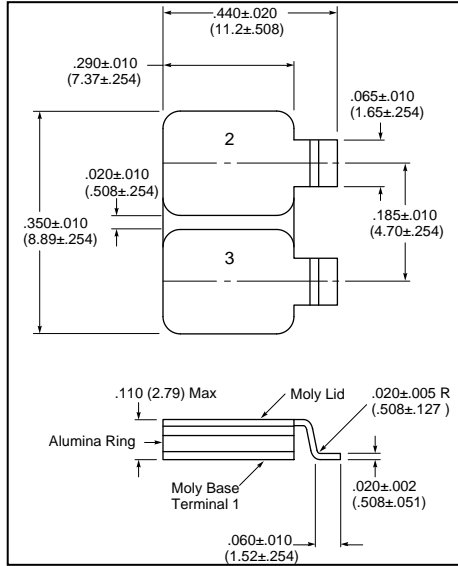
**MECHANICAL DIMENSIONS: In Inches / mm**



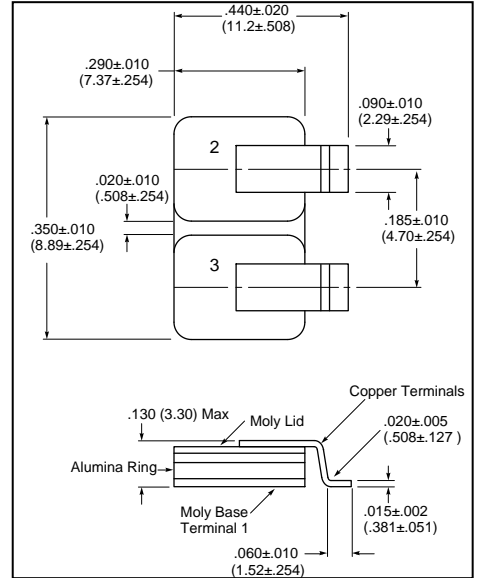
**SHD-4**



**Note:**  $V_F$  Curves are shown for die only.

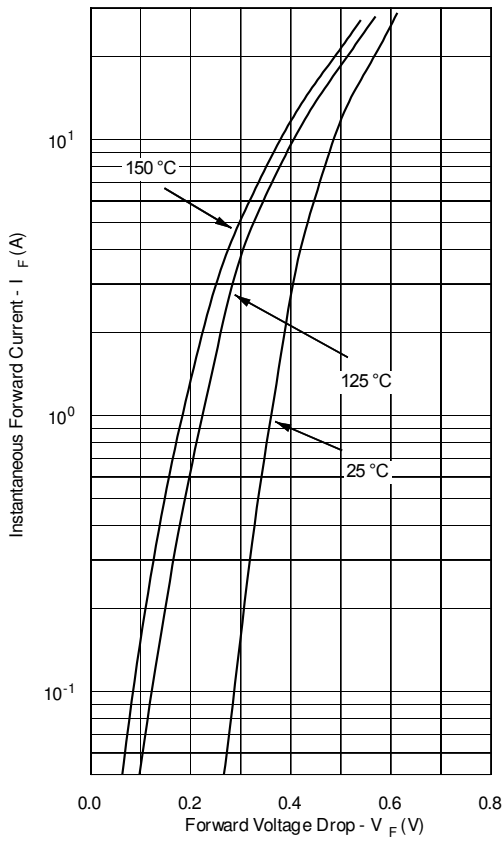


**SHD-4A**

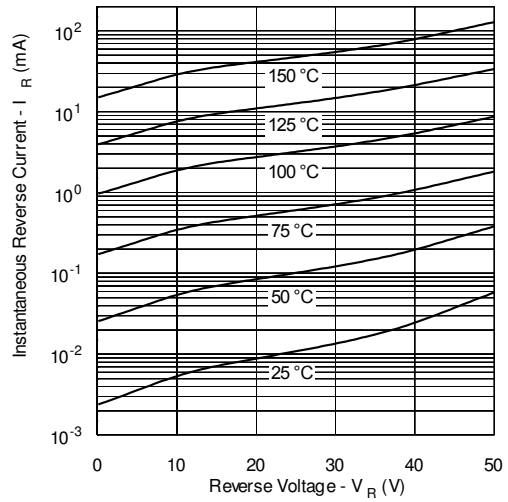


**SHD-4B**

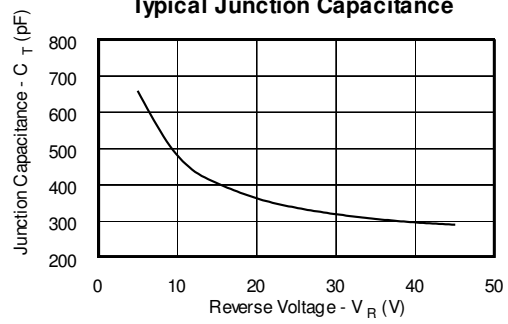
### Typical Forward Characteristics



### Typical Reverse Characteristics



### Typical Junction Capacitance



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