

TECHNICAL DATA  
DATASHEET 5068, REV.A

## HERMETIC POWER SCHOTTKY RECTIFIER

### Low Reverse Leakage

### Low Forward Voltage Drop

**Applications:**

- Switching Power Supply • Converters • Free-Wheeling Diodes • Polarity Protection Diode •
- 60A 60V Schottky rectifier in SHD-3 package

**Features:**

- Low Reverse Leakage Current
- Soft Reverse Recovery at Low and High Temperature
- 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

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

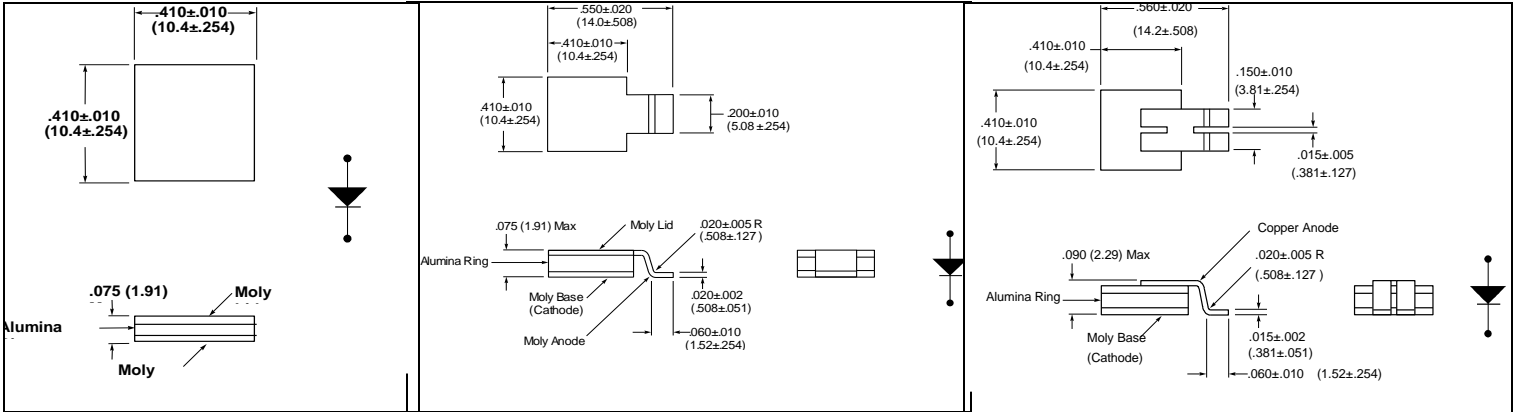
Characteristics	Symbol	Condition	Max.	Units
Peak Inverse Voltage	$V_{RWM}$	-	60	V
Max. Average Forward Current	$I_{F(AV)}$	-	60	A
Max. Peak One Cycle Non-Repetitive Surge Current	$I_{FSM}$	8.3 ms, half Sine wave	600	A
Max. Junction Temperature	$T_J$	-	-65 to +175	$^\circ\text{C}$
Max. Storage Temperature	$T_{stg}$	-	-65 to +175	$^\circ\text{C}$
Max. Thermal Resistance	$R_{\theta JC}$	-	0.7	$^\circ\text{C/W}$

**Electrical Characteristics:**

Characteristics	Symbol	Condition	Max.	Units
Max. Forward Voltage Drop	$V_{F1}$	@ 60A, Pulse, $T_J = 25\text{ }^\circ\text{C}$	0.68	V
	$V_{F2}$	@ 60A, Pulse, $T_J = 125\text{ }^\circ\text{C}$	0.61	V
Max. Reverse Current	$I_{R1}$	@ $V_R = 60\text{V}$ , Pulse, $T_J = 25\text{ }^\circ\text{C}$	1.2	mA
	$I_{R2}$	@ $V_R = 60\text{V}$ , Pulse, $T_J = 125\text{ }^\circ\text{C}$	90	mA
Max. Junction Capacitance	$C_T$	@ $V_R = 5\text{V}$ , $T_C = 25\text{ }^\circ\text{C}$ $f_{SIG} = 1\text{MHz}$ , $V_{SIG} = 50\text{mV}$ (p-p)	2600	pF

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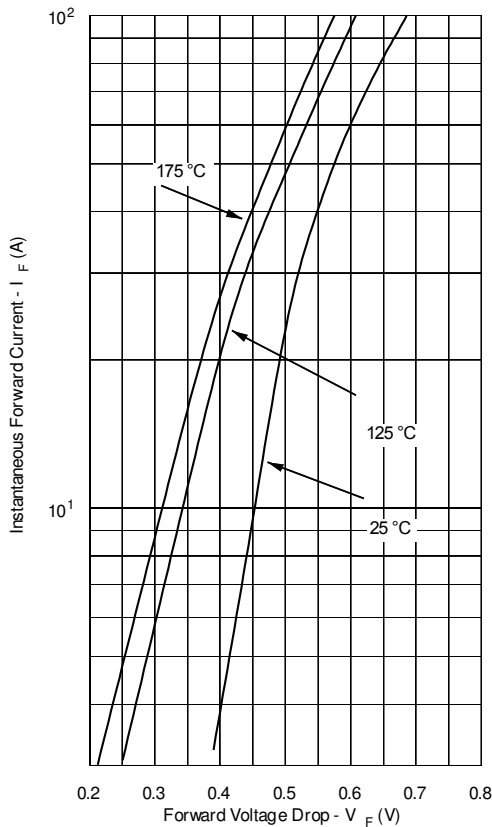
**Mechanical Dimensions: in inches / mm**



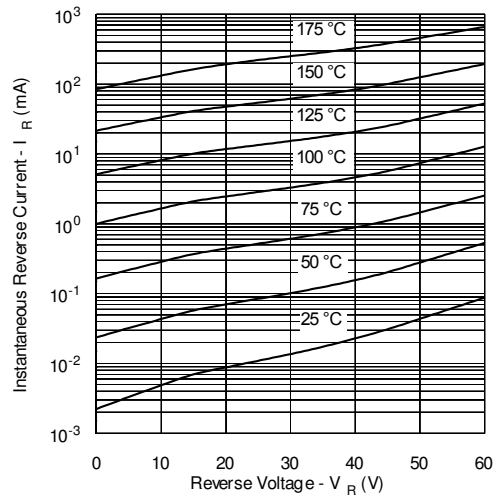
**SHD-3**

**SHD-3B**

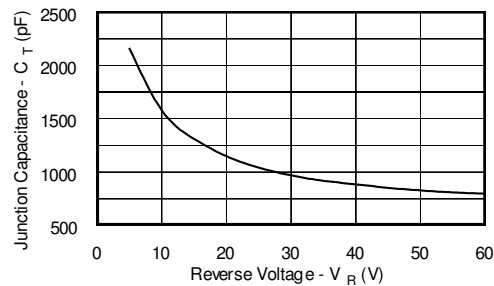
**Typical Forward Characteristics**



**Typical Reverse Characteristics**



**Typical Junction Capacitance**



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