



# SOLID STATE DEVICES, INC.

14830 Valley View Blvd \* La Mirada, Ca 90638  
Phone: (562) 404-7855 \* Fax: (562) 404-1773  
ssdi@ssdi-power.com \* www.ssdi-power.com

## Designer's Data Sheet

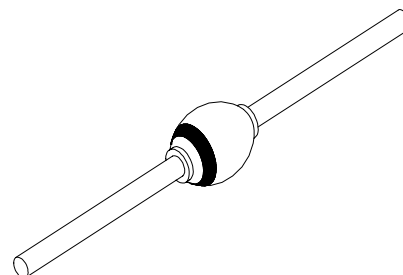
**SHF1102  
thru  
SHF1106**

**1 AMP  
200 - 600 VOLTS  
HYPER FAST  
RECTIFIER**

### FEATURES:

- **Hyper Fast Recovery: 35 nsec maximum**
- **PIV to 600 Volts**
- **Hermetically sealed**
- **Void Free Construction**
- **For High Efficiency Applications**
- **Replaces UES1104 Types**
- **TX, TXV, and Space Level Screening Available**

AXIAL



Maximum Ratings	SYMBOL	VALUE	UNITS
<b>Peak Repetitive Reverse and DC Blocking Voltage</b> SHF1102 SHF1103 SHF1104 SHF1105 SHF1106	$V_{RRM}$ $V_{RWM}$ $V_R$	200 300 400 500 600	Volts
<b>Average Rectified Forward Current</b> (Resistive Load, 60Hz, Sine Wave, $T_A = 25^\circ\text{C}$ )	$I_o$	1	Amps
<b>Peak Surge Current</b> (8.3 ms Pulse, Half Sine Wave, $T_A = 25^\circ\text{C}$ )	$I_{FSM}$	20	Amps
<b>Operating and Storage Temperature</b>	$T_{OP} \ \& \ T_{STG}$	-65 TO +175	$^\circ\text{C}$
<b>Maximum Thermal Resistance</b> Junction to Leads, $L = 3/8"$	$R_{\theta JE}$	38	$^\circ\text{C/W}$

NOTE: All specifications are subject to change without notification. SCD's for these devices should be reviewed by SSDI prior to release.

**DATA SHEET #: RH0111B**

**SHF1102  
thru  
SHF1106**



**SOLID STATE DEVICES, INC.**

14830 Valley View Blvd \* La Mirada, Ca 90638  
Phone: (562) 404-7855 \* Fax: (562) 404-1773  
ssdi@ssdi-power.com \* www.ssdi-power.com

Electrical Characteristics	SYMBOL	MAXIMUM	UNITS
<b>Instantaneous Forward Voltage Drop</b> ( $I_F = 1 \text{ A}$ , $T_A = 25^\circ\text{C}$ , 300 $\mu\text{s}$ Pulse)	$V_F$	<b>1.35</b>	$V_{DC}$
<b>Instantaneous Forward Voltage Drop</b> ( $I_F = 1 \text{ A}$ , $T_A = -55^\circ\text{C}$ , 300 $\mu\text{s}$ Pulse)	$V_F$	<b>1.5</b>	$V_{DC}$
<b>Reverse Leakage Current</b> (Rated $V_R$ , $T_A = 25^\circ\text{C}$ , 300 $\mu\text{s}$ minimum Pulse)	$I_R$	<b>10</b>	$\mu\text{A}$
<b>Reverse Leakage Current</b> (Rated $V_R$ , $T_A = 100^\circ\text{C}$ , 300 $\mu\text{s}$ minimum Pulse)	$I_R$	<b>1</b>	$\text{mA}$
<b>Junction Capacitance</b> ( $V_R = 10V_{DC}$ , $T_A = 25^\circ\text{C}$ , $f = 1 \text{ MHz}$ )	$C_J$	<b>22</b>	$\text{pF}$
<b>Reverse Recovery Time</b> ( $I_F = 500 \text{ mA}$ , $I_R = 1 \text{ A}$ , $I_{RR} = 250 \text{ mA}$ , $T_A = 25^\circ\text{C}$ )	$t_{RR}$	<b>35</b>	$\text{nsec}$

**CASE OUTLINE:**

DIMENSIONS		
DIM	MIN	MAX
<b>A</b>	<b>.100"</b>	<b>.150"</b>
<b>B</b>	<b>.100"</b>	<b>.180"</b>
<b>C</b>	<b>.027"</b>	<b>.033"</b>
<b>D</b>	<b>1.00"</b>	<b>---</b>

