



PRELIMINARY

SOLID STATE DEVICES, INC

14849 Firestone Boulevard · La Mirada, CA 90638  
Phone: (714) 670-SSDI (7734) · Fax: (714) 522-7424SHF1102  
thru  
SHF1106

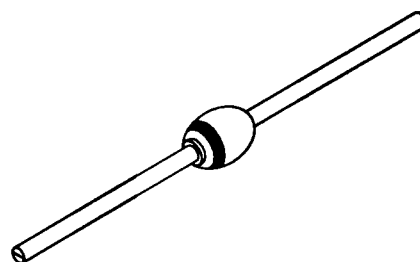
## Designer's Data Sheet

## FEATURES:

- Hyper Fast Recovery: 35 nsec Maximum
  - PIV to 600 Volts
  - Hermetically Sealed
  - Void Free Construction
  - For High Efficiency Applications
  - Single Chip Construction
  - Replaces UES1104 Types
- 
- TX, TXV and Space Level Screening available

1 AMP  
200-600 VOLTS  
35 nsec  
HYPER FAST  
RECTIFIER

AXIAL



## MAXIMUM RATINGS

| RATING                                                                                                                                  | SYMBOL                     | VALUE                           | UNIT  |
|-----------------------------------------------------------------------------------------------------------------------------------------|----------------------------|---------------------------------|-------|
| Peak Repetitive Reverse<br>and DC Blocking Voltage<br><br>SHF1102<br>SHF1103<br>SHF1104<br>SHF1105<br>SHF1106                           | VRRM<br><br>VRWM<br><br>VR | 200<br>300<br>400<br>500<br>600 | Volts |
| Average Rectified Forward Current<br>(Resistive Load, 60Hz, Sine Wave, TA=25°C)                                                         | IO                         | 1                               | Amps  |
| Peak Surge Current<br>(8.3 ms Pulse, Half Sine Wave Superimposed on IO, allow<br>junction to reach equilibrium between pulses, TA=25°C) | IFSM                       | 20                              | Amps  |
| Operating and storage temperature                                                                                                       | Top & Tstg                 | -65 to +175                     | °C    |
| Maximum Thermal Resistance<br>Junction to Leads, L=3/8"                                                                                 | RθJL                       | 38                              | °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#: RH0111 A

RMD

# SHF1102 thru SHF1106

PRELIMINARY



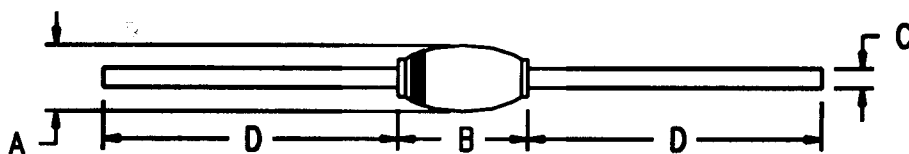
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## ELECTRICAL CHARACTERISTICS

| CHARACTERISTICS                                                             | SYMBOL | MAXIMUM | UNIT |
|-----------------------------------------------------------------------------|--------|---------|------|
| Instantaneous Forward Voltage Drop<br>(IF = 1 Adc, TA=25°C, 300μs Pulse)    | VF     | 1.35    | Vdc  |
| Instantaneous Forward Voltage Drop<br>(IF = 1 Adc, TA= - 55°C, 300μs Pulse) | VF     | 1.5     | Vdc  |
| Reverse Leakage Current<br>(Rated VR, TA=25°C, 300μs pulse minimum)         | IR     | 10      | μA   |
| Reverse Leakage Current<br>(Rated VR, TA=100°C, 300μs pulse minimum)        | IR     | 1       | mA   |
| Junction Capacitance<br>(VR = 10 Vdc, TA=25°C, f= 1 MHz )                   | CJ     | 20      | pf   |
| Reverse Recovery Time<br>(IF=500mA, IR=1 A, IRR=250mA, TA=25°C)             | trr    | 35      | nsec |

## CASE OUTLINE:



### DIMENSIONS

| DIM | MIN.  | MAX.  |
|-----|-------|-------|
| A   | .100" | .150" |
| B   | .100" | .180" |
| C   | .027" | .033" |
| D   | 1.00" | —     |

## TYPICAL OPERATING CURVES

TA=25°C Unless otherwise specified

