



Solid State Devices, Inc.

14701 Firestone Blvd * La Mirada, CA 90638
 Phone: (562) 404-4474 * Fax: (562) 404-1773
 ssdi@ssdi-power.com * www.ssdi-power.com

**SHF1104 & SHF1104SMS
 thru
 SHF1110 & SHF1110SMS**

**1 AMP
 400 - 1000 V
 Hyper Fast Rectifier**

DESIGNER'S DATA SHEET

Part Number/Ordering Information ^{1/}
 SHF11

Screening ^{2/}
 — = Not Screened
 TX = TX Level
 TXV = TXV Level
 S = S Level

Package Type
 — = Axial Leaded
 SMS = Surface Mount Square Tab

Family/Voltage
 04 = 400 V
 06 = 600 V
 08 = 800 V
 09 = 900 V
 10 = 1000V

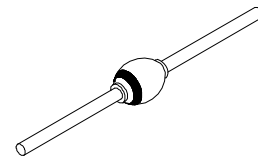
- Features:**
- Hyper fast recovery: 40 nsec maximum
 - PIV to 1000 Volts, consult factory
 - Hermetically sealed
 - Void free construction
 - For high efficiency applications
 - Replaces UES 1104, UES1106, 1N6621-1N6625
 - TX, TXV, and S level screening available^{2/}

Maximum Ratings	Symbol	Value	Units
Peak Repetitive Reverse and DC Blocking Voltage	SHF1104	400	Volts
	SHF1106	600	
	SHF1108	800	
	SHF1109	900	
	SHF1110	1000	
Average Rectified Forward Current (Resistive Load, 60 Hz Sine Wave, T _A = 25°C)	I _O	1.0	Amps
Peak Surge Current (8.3 ms Pulse, Half Sine Wave, T _A = 25°C)	I _{FSM}	20	Amps
Operating & Storage Temperature	T _{OP} & T _{STG}	-65 to +175	°C
Maximum Thermal Resistance	Junction to Leads, L = 3/8 Junction to Tabs	35	°C/W
		28	

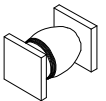
NOTES:

- ^{1/} For ordering information, price, and availability - contact factory.
^{2/} Screening based on MIL-PRF-19500. Screening flows available on request.

Axial Lead Diode



SMS



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



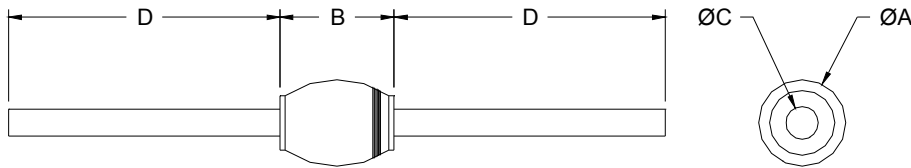
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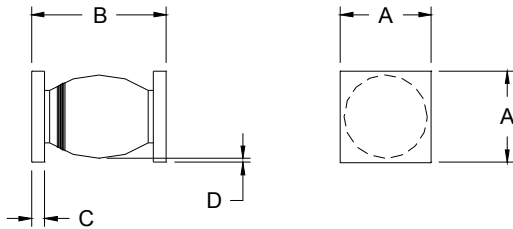
Electrical Characteristic		Symbol	Max	Units
Instantaneous Forward Voltage Drop ($I_F = 1A_{DC}$, $T_A = 25^\circ C$ pulsed)	SHF1104-1106 SHF1108-1110	V_F	1.35 1.65	V_{DC}
Instantaneous Forward Voltage Drop ($I_F = 1A_{DC}$, $T_A = -55^\circ C$ pulsed)	SHF1104-1106 SHF1108-1110	V_F	1.50 1.80	V_{DC}
Reverse Leakage Current (Rated V_R , $T_A = 25^\circ C$ pulsed)		I_R	10	μA
Reverse Leakage Current (Rated V_R , $T_A = 100^\circ C$ pulsed)		I_R	1	mA
Reverse Recovery Time ($I_F = 500mA$, $I_R = 1A$, $I_{RR} = 250mA$, $T_A = 25^\circ C$)		t_{RR}	40	nsec
Junction Capacitance ($V_R = 10V_{DC}$, $T_A = 25^\circ C$, $f = 1MHz$)		C_J	22	pF

Case Outline: (Axial)



DIM	MIN	MAX
A	0.100"	0.130"
B	0.130"	0.180"
C	0.027"	0.033"
D	1.00"	--

Case Outline: (SMS)



DIM	MIN	MAX
A	0.127"	0.140"
B	0.180"	0.230"
C	0.020"	0.030"
D	0.002"	--