



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

**SHF1204 & SHF1204SMS
 thru
 SHF1209 & SHF1209SMS**

**2 AMP
 400 - 900 V
 Hyper Fast Rectifier**

DESIGNER'S DATA SHEET

SHF12

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

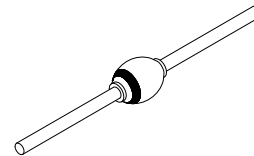
- Features:**
- Hyper Fast Recovery: 40 nsec maximum
 - PIV to 900 Volts, Consult Factory
 - Hermetically Sealed
 - Void Free Construction
 - For High Efficiency Applications
 - Replaces UES1204, UES1206
 - TX, TXV, S Level screening Available^{2/}

Maximum Ratings		Symbol	Value	Units
Peak Repetitive Reverse and DC Blocking Voltage	SHF1204	V_{RRM}	400	Volts
	SHF1206	V_{RSM}	600	
	SHF1208	V_R	800	
	SHF1209		900	
Average Rectified Forward Current (Resistive Load, 60 hz Sine Wave, $T_A = 25^\circ C$)		I_O	2.0	Amps
Peak Surge Current (8.3 ms Pulse, Half Sine Wave, $T_A = 25^\circ C$)		I_{FSM}	20	Amps
Operating & Storage Temperature		T_{OP} & T_{STG}	-65 to +175	$^\circ C$
Maximum Thermal Resistance	Junction to Leads, $L = 3/8$ "	$R_{\theta JL}$	35	$^\circ C/W$
	Junction to Tabs	$R_{\theta JE}$	28	

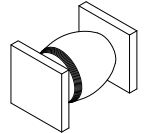
NOTES:

- 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





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 thru
 SHF1209 & SHF1209SMS**

Electrical Characteristic	Symbol	Max	Units
Instantaneous Forward Voltage Drop ($I_F = 1.2A_{DC}$, $T_A = 25^\circ C$; pulsed)	V_F	1.7	V_{DC}
Instantaneous Forward Voltage Drop ($I_F = 2A_{DC}$, $T_A = 25^\circ C$; pulsed)	V_F	1.9	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
Junction Capacitance ($V_R = 10V_{DC}$, $T_A = 25^\circ C$, $f = 1MHz$)	C_J	22	pF
Reverse Recovery Time ($I_F = 500mA$, $I_R = 1A$, $I_{RR} = 250mA$, $T_A = 25^\circ C$) ($I_F = 500mA$, $I_R = 1A$, $I_{RR} = 250mA$, $T_A = 100^\circ C$)	t_{RR}	40 80	nsec

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"	--