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

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

2 AMP
400 - 900 V
Hyper Fast Rectifier

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/]

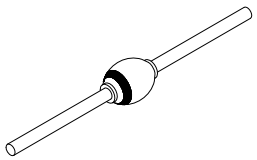
Maximum Ratings		Symbol	Value	Units
Peak Repetitive Reverse and DC Blocking Voltage	**SHF1204** **SHF1206** **SHF1208** **SHF1209**	V_{RRM} V_{RSM} V_R	400 600 800 900	Volts
Average Rectified Forward Current (Resistive Load, 60 hz Sine Wave, T_A = 25 °C)		Io	2.0	Amps
Peak Surge Current (8.3 ms Pulse,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

NOTES:

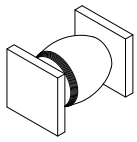
1/ For Ordering Information, Price, and Availability- Contact Factory.

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.	**DATA SHEET #: RH0081G**

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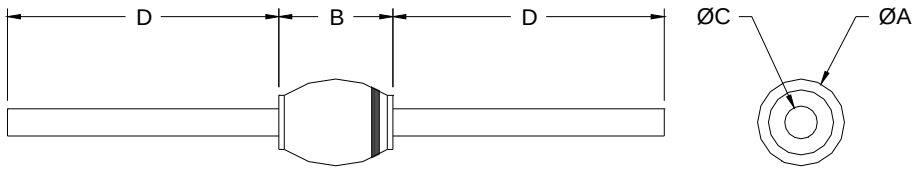
SHF1204 & SHF1204SMS thru SHF1209 & SHF1209SMS

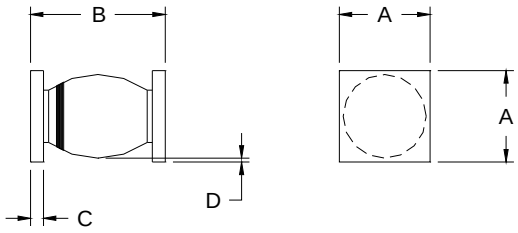
Electrical Characteristic	Symbol	Max	Units
Instantaneous Forward Voltage Drop (I_F = 1.2A_{DC}, T_A = 25ºC; pulsed)	$\mathbf{V_F}$	1.7	V_{DC}
Instantaneous Forward Voltage Drop (I_F = 2A_{DC}, T_A = 25ºC; pulsed)	$\mathbf{V_F}$	1.9	V_{DC}
Reverse Leakage Current (Rated V_R, T_A = 25ºC; pulsed)	$\mathbf{I_R}$	10	µA
Reverse Leakage Current (Rated V_R, T_A = 100ºC; pulsed)	$\mathbf{I_R}$	1	mA
Junction Capacitance (V_R=10V_{DC}, T_A=25ºC, f=1MHz)	$\mathbf{C_J}$	22	pF
Reverse Recovery Time (**I_F** = 500mA, I_R = 1A, I_{RR} = 250mA, T_A = 25ºC) (**I_F** = 500mA, I_R = 1A, I_{RR} = 250mA, T_A = 100ºC)	$\mathbf{t_{RR}}$	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”	--

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