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

SHF1104 & SHF1104SMS thru SHF1109 & SHF1109SMS

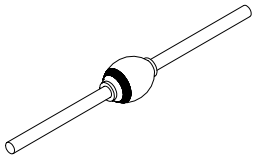
DESIGNER'S DATA SHEET

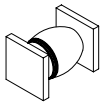
1 AMP 400 - 900 V Hyper Fast Rectifier

Features:

- Hyper Fast Recovery: 40 nsec maximum
- PIV to 900 Volts, Consult Factory
- Hermetically Sealed
- Void Free Construction
- For High Efficiency Applications
- Replaces UES 1104, UES1106, IN6624
- TX, TXV, S Level screening Available

Axial Lead Diode **SMS**





Maximum Ratings		Symbol	Value	Units
Peak Repetitive Reverse and DC Blocking Voltage	**SHF1104** **SHF1106** **SHF1108** **SHF1109**	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	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	ºC
Maximum Thermal Resistance	Junction to Leads, L = 3/8 Junction to Tabs	$R_{\theta JE}$	35 28	ºC/W

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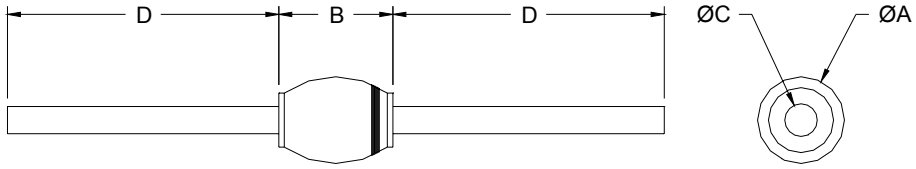
SHF1104 & SHF1104SMS thru SHF1109 & SHF1109SMS

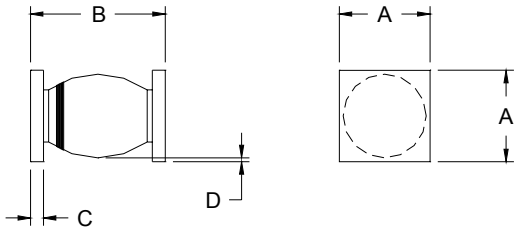
Electrical Characteristic	Symbol	Max	Units
Instantaneous Forward Voltage Drop (I_F = 1A_{DC}, T_A = 25ºC pulsed)	$\mathbf{V_F}$	1.35	V_{DC}
Instantaneous Forward Voltage Drop (I_F = 1A_{DC}, T_A = -55ºC pulsed)	$\mathbf{V_F}$	1.5	V_{DC}
Reverse Leakage Current (Rated V_R, T_A = 25ºC pulsed)	$\mathbf{I_R}$	10	µA
Reverse Leakage Current (Rated V_R, T_A = 100ºC pulsed)	$\mathbf{I_R}$	1	mA
Reverse Recovery Time (**I_F** = 500mA, I_R = 1A, I_{RR} = 250mA, T_A = 25ºC)	$\mathbf{t_{RR}}$	40	nsec
Junction Capacitance (V_R=10V_{DC}, T_A=25ºC, f=1MHz)	$\mathbf{C_J}$	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”	--