



Solid State Devices, Inc.

14830 Valley View Blvd * La Mirada, Ca 90638

Phone: (562) 404-7855 * Fax: (562) 404-1773

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**SHF1302SMS
thru
SHF1306SMS**

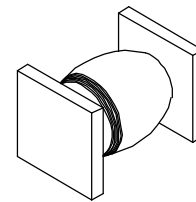
DESIGNER'S DATA SHEET

Features:

- Hyper Fast Recovery: 40 nsec Maximum
- PIV to 600 Volts
- Hermetically Sealed
- Void Free Construction
- For High Efficiency Applications
- Single Chip Construction
- Replaces UES 1304 Types
- TX, TXV, Space Level Screening Available. Consult Factory.

**3 AMP
200 – 600 Volts
40 nsec
Hyper Fast Recovery
Rectifier**

**Surface Mount
Square Tab**



Maximum Ratings		Symbol	Value	Units
Peak Repetitive Reverse and DC Blocking Voltage	SHF1302SMS	V_{RRM}	200	Volts
	SHF1303SMS		300	
	SHF1304SMS	V_{RWM}	400	
	SHF1305SMS		500	
	SHF1306SMS	V_R	600	
Average Rectified Forward Current (Resistive Load, 60 Hz Sine Wave, $T_A = 25^\circ\text{C}$)		I_o	3.0	Amps
Peak Surge Current (8.3 ms Pulse, Half Sine Wave Superimposed on I_o , Allow Junction to Reach Equilibrium Between Pulses, $T_A = 25^\circ\text{C}$)		I_{FSM}	75	Amps
Operating & Storage Temperature		Top & Tstg	-65 to +175	°C
Maximum Thermal Resistance Junction to End Tab		R_{qJE}	14	°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 #: RH0103B

DOC



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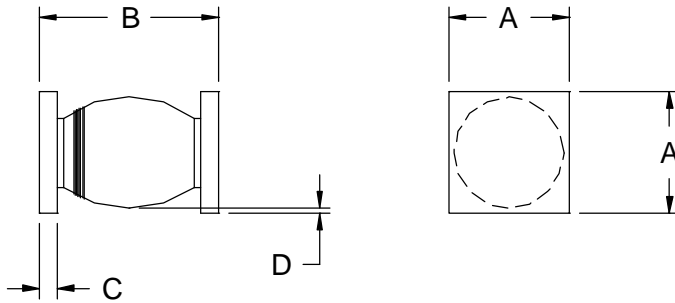
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thru
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Electrical Characteristics		Symbol	Min	Max	Units
Instantaneous Forward Voltage Drop ($T_A = 25^\circ\text{C}$, 300 μsec pulse)	$I_F = 3\text{A}$	V_{F1}	—	1.35	Volts
Instantaneous Forward Voltage Drop ($T_A = -55^\circ\text{C}$, 300 μsec pulse)	$I_F = 3\text{A}$	V_{F2}	—	1.5	Volts
Reverse Leakage Current (Rated V_R , $T_A = 25^\circ\text{C}$, 300 μsec pulse minimum)		I_{R1}	—	10	mA
Reverse Leakage Current (Rated V_R , $T_A = 150^\circ\text{C}$, 300 μsec pulse minimum)		I_{R2}	—	200	mA
Junction Capacitance ($V_R = 10\text{ Vdc}$, $T_A = 25^\circ\text{C}$, $f = 1\text{MHz}$)		C_J	—	50	pF
Reverse Recovery Time ($I_F = 500\text{ mA}$, $I_R = 1\text{A}$, $I_{RR} = 0.25\text{A}$)	$T_A = 25^\circ\text{C}$	t_{rr}	—	40	nsec

Case Outline: (Surface Mount Square Tab)



DIMENSIONS		
DIM	MIN	MAX
A	0.172"	0.180"
B	0.200"	0.250"
C	0.020"	0.035"
D	0.002"	—

DIMENSIONS PRIOR TO SOLDER DIPPING

TYPICAL OPERATING CURVES

$T_A = 25^\circ\text{C}$ Unless Otherwise Specified

