



PRELIMINARY

SOLID STATE DEVICES, INC

14849 Firestone Boulevard · La Mirada, CA 90638
Phone: (714) 670-SSDI (7734) · Fax: (714) 522-7424

SHF1402SMS
thru
SHF1406SMS

4 AMP
200-600 VOLTS
30 nsec
HYPER FAST
RECTIFIER

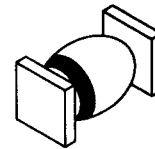
Designer's Data Sheet

FEATURES:

- Hyper Fast Recovery: 30 nsec Maximum
- Guaranteed High Temp. trr: 60nsec max
- PIV to 600 Volts
- Void Free Construction
- Hermetically Sealed Surface Mount Package
- Low Reverse Leakage Current
- For High Efficiency Applications
- Replaces 1N6626 Series where faster trr is required

- TX, TXV and Space Level Screening available

SURFACE MOUNT
SQUARE TAB



MAXIMUM RATINGS

RATING	SYMBOL	VALUE	UNIT
Peak Repetitive Reverse and DC Blocking Voltage SHF1402SMS SHF1403SMS SHF1404SMS SHF1405SMS SHF1406SMS	VRRM VRWM VR	200 300 400 500 600	Volts
Average Rectified Forward Current (Resistive Load, 60Hz, Sine Wave, TA=55°C)	IO	4	Amps
Surge Current (Single 8.3 ms Pulse, Half Sine Superimposed on IO, TA=55°C)	IFSM	75	Amps
Repetitive Peak Surge Current (8.3 ms Pulse, allow junction to reach equilibrium between pulses, TA=55°C)	IFRM	20	Amps
Operating and storage temperature	Top & Tstg	-65 to +175	°C
Maximum Thermal Resistance Junction to End Tab	RθJE	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 #: RH0083 A

RMD

SHF1402SMS thru SHF1406SMS

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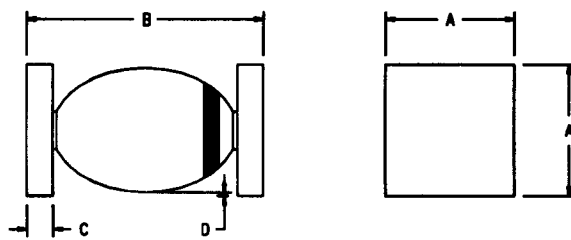
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ELECTRICAL CHARACTERISTICS

CHARACTERISTICS	SYMBOL	MAXIMUM	UNIT
Instantaneous Forward Voltage Drop ($I_F = 3 \text{ A dc}$, $T_A = 25^\circ\text{C}$, 300 μs Pulse)	V_F	1.5	Vdc
Instantaneous Forward Voltage Drop ($I_F = 4 \text{ A dc}$, $T_A = 25^\circ\text{C}$, 300 μs Pulse)	V_F	1.6	Vdc
Reverse Leakage Current (Rated V_R , $T_A = 25^\circ\text{C}$, 300 μs pulse minimum)	I_R	10	μA
Reverse Leakage Current (Rated V_R , $T_A = 100^\circ\text{C}$, 300 μs pulse minimum)	I_R	1	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 ($I_F = 500\text{mA}$, $I_R = 1\text{A}$, $I_{RR} = 250\text{mA}$, $T_A = 25^\circ\text{C}$) ($I_F = 500\text{mA}$, $I_R = 1\text{A}$, $I_{RR} = 250\text{mA}$, $T_A = 100^\circ\text{C}$)	t_{rr}	30 60	nsec

CASE OUTLINE:



Dimensions prior to soldering

DIMENSIONS

DIM	MIN.	MAX.
A	.172"	.180"
B	.220"	.270"
C	.022"	.028"
D	.002"	---

TYPICAL OPERATING CURVES

