



LITE-ON SEMICONDUCTOR S1J-S1M(LS)

SURFACE MOUNT **GLASS PASSIVATED RECTIFIER**

FEATURES

- · Glass passivated chip
- · For surface mounted applications
- · Low reverse leakage current
- Low forward voltage drop
- · High current capability
- Lead-Free Finish; RoHS Compliant (Notes 1 & 2)
- Halogen and Antimony Free. "Green" Device (Note 3)

MECHANICAL DATA

- Package: Molded plastic
- · Package Material: "Green" molding compound, UL flammability classification 94V-0, (No Br. Sb. Cl.), "Halogen-free"
- · Polarity: Indicated by cathode band
- Weight: 0.07 grams (Approximate)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS Ratings at 25°C ambient temperature unless otherwise specified.

ABSOLUTE RATINGS

PAR	AMETER	SYMBOL	S1J	S1K	S1M	UNIT
Maximum repetitive peak reverse voltage		V _{RRM}	600	800	1000	V
Maximum DC blocking voltage		V _{DC}	600	800	1000	V
Average rectified output current @ T _L =100°C @ T _C =100°C		I _{F(AV)}	1.0			А
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load. (JEDEC METHOD)		I _{FSM}	30		А	
Operation and storage temperature range		T _J , T _{STG}	-55 to +150		°C	
STATIC ELECTRICAL	CHARACTERISTICS					
PARAMETER	TEST CONDITION	SYMBOL		MAX		UNIT
Forward voltage	I _F =1.0A	V _F		1.1		V
Reverse leakage current	V_R at rated $T_J=25^{\circ}C$ $T_J=125^{\circ}C$	I _R	5.0 100		uA	
Typical junction capacitance (Note 4)		CT	10		pF	
THERMAL CHARACTE	RISTICS					
PARAMETER		SYMBOL	TYP.		UNIT	
Typical thermal resistance (Note 5)		R _{thJL} R _{thJC}	30 30		°C/W	
DYNAMIC ELECTRICA	L CHARACTERISTICS					
PARAMETER	TEST CONDITION	SYMBOL		TYP.		UNIT

PARAMETER	TEST CONDITION	SYMBOL	TYP.	UNIT
Reverse recovery time	I_F = 0.5A, I_{rr} = 0.25A, I_R =1.0A	t _{rr}	1300	ns

Note

1. EU Directive 2002/95/EC (RoHS), 2011/65/EU (RoHS 2) & 2015/863/EU (RoHS 3) compliant. All applicable RoHS exemptions applied.

See https://www.diodes.com/quality/lead-free/ for more information about Diodes Incorporated's definitions of Halogen- and Antimony-free, "Green" and Lead-free.
Halogen- and Antimony-free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony

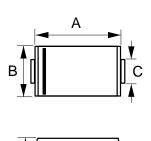
compounds.

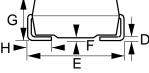
4. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.

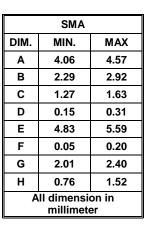
5. Thermal resistance junction to ambient, case and lead.

REVERSE VOLTAGE – 600 to 1000 Volts FORWARD CURRENT – 1.0 Ampere

SMA









LITE-ON SEMICONDUCTOR

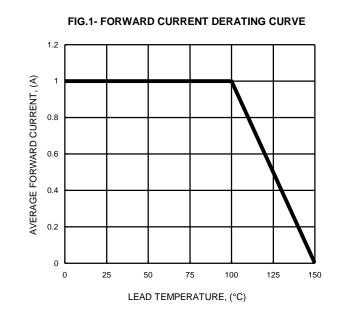


FIG.3- TYPICAL FORWARD CHARACTERISTICS

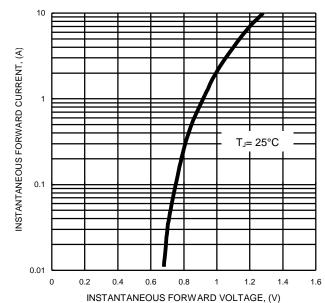
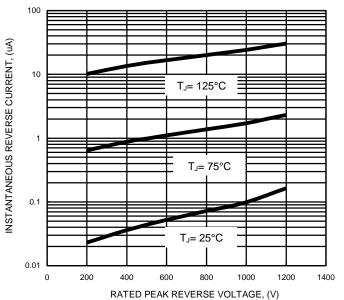


FIG.2- MAXIMUM NON-REPETITIVE SURGE CURRENT 35 PEAK FORWARD SURGE CURRENT, (A) 30 25 20 15 10 5 8.3ms single half sine-wave 1 0 1 10 100

NUMBER OF CYCLES AT 60Hz

FIG.4- TYPICAL REVERSE CHARACTERISTICS



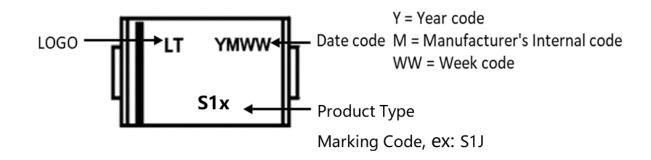


LITE-ON SEMICONDUCTOR

Ordering Information:

Dort Number	Deekene	Packing		
Part Number	Package	Qty.	Carrier	
S1J_HF	SMA	5000	Tape & Reel	
S1K_HF	SMA	5000	Tape & Reel	
S1M_HF	SMA	5000	Tape & Reel	

Marking Information:





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