

**SURFACE MOUNT
GLASS PASSIVATED RECTIFIER**

**REVERSE VOLTAGE – 50 to 1000 Volts
FORWARD CURRENT – 1.0 Ampere**

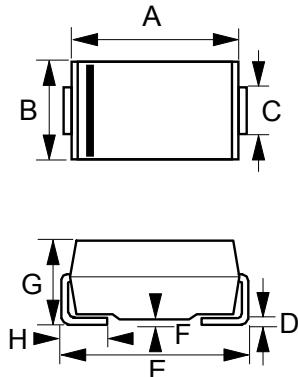
FEATURES

- Glass passivated chip
- For surface mounted applications
- Low reverse leakage current
- Low forward voltage drop
- High current capability

MECHANICAL DATA

- Case: Molded plastic
- Case 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)

SMA



SMA		
DIM.	MIN.	MAX
A	4.06	4.57
B	2.29	2.92
C	1.27	1.63
D	0.15	0.31
E	4.83	5.59
F	0.05	0.20
G	1.96	2.40
H	0.76	1.52

All dimension in millimeter

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

ABSOLUTE RATINGS

PARAMETER	SYMBOL	S1AT	S1BT	S1DT	S1GT	S1JT	S1KT	S1MT	UNIT
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum DC blocking voltage	V_{DC}	50	100	200	400	600	800	1000	V
Average rectified output current @ $T_L=100^\circ\text{C}$ @ $T_C=100^\circ\text{C}$	$I_{F(AV)}$				1.0				A
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load. (JEDEC METHOD)	I_{FSM}				30				A
Operation and storage temperature range	T_J, T_{STG}				-55 to +150				°C

STATIC ELECTRICAL CHARACTERISTICS

PARAMETER	TEST CONDITION	SYMBOL	MAX	UNIT
Forward voltage	$I_F=1.0\text{A}$	V_F	1.1	V
Reverse leakage current	V_R at rated $T_J=25^\circ\text{C}$ $T_J=125^\circ\text{C}$	I_R	5.0 100	uA
Typical junction capacitance (Note 1)		C_J	10	pF

THERMAL CHARACTERISTICS

PARAMETER	SYMBOL	TYP.	UNIT
Typical thermal resistance (Note 2)	R_{thJ_L} R_{thJ_C}	30 30	°C/W

DYNAMIC ELECTRICAL CHARACTERISTICS

PARAMETER	TEST CONDITION	SYMBOL	MAX	UNIT
Reverse recovery time	$I_F= 0.5\text{A}$, $I_{RR}= 0.25\text{A}$, $I_R = 1.0\text{A}$	T_{RR}	1300	ns

Note :

- (1) Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
- (2) Thermal resistance junction to ambient, case and lead.

REV. 0, MAY.-2015, KSDA07

RATING AND CHARACTERISTIC CURVES
S1AT thru S1MT

LITEON

FIG.1- FORWARD CURRENT DERATING CURVE

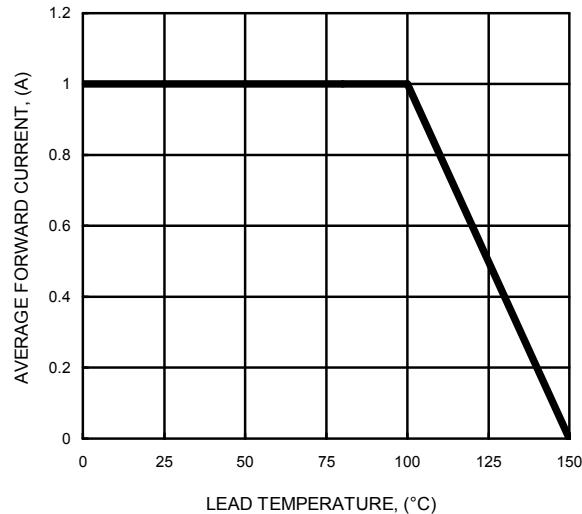


FIG.2- MAXIMUM NON-REPETITIVE SURGE CURRENT

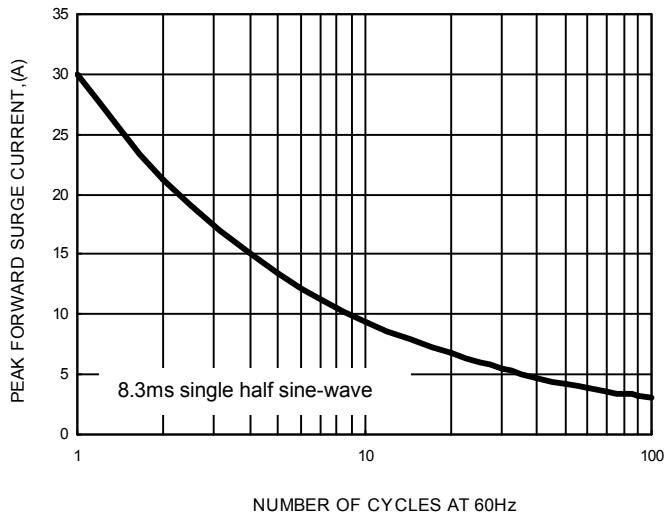


FIG.3- TYPICAL FORWARD CHARACTERISTICS

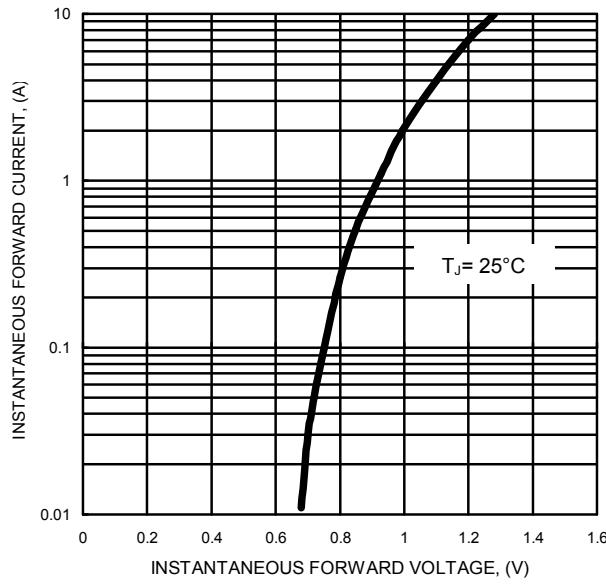
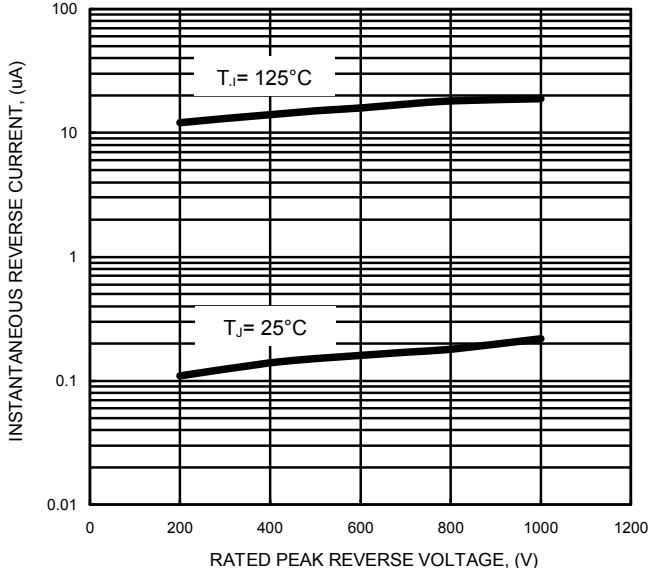


FIG.4- TYPICAL REVERSE CHARACTERISTICS



Important Notice and Disclaimer

LSC reserves the right to make changes to this document and its products and specifications at any time without notice. Customers should obtain and confirm the latest product information and specifications before final design, purchase or use.

LSC makes no warranty, representation or guarantee regarding the suitability of its products for any particular purpose, nor does LSC assume any liability for application assistance or customer product design. LSC does not warrant or accept any liability with products which are purchased or used for any unintended or unauthorized application.

No license is granted by implication or otherwise under any intellectual property rights of LSC.

LSC products are not authorized for use as critical components in life support devices or systems without express written approval of LSC.