LITE-ON SEMICONDUCTORS

1SS400

SURFACE MOUNT
FAST SWITCHING DIODE

REVERSE VOLTAGE – 80 Volts
FORWARD CURRENT – 0.1 Ampere

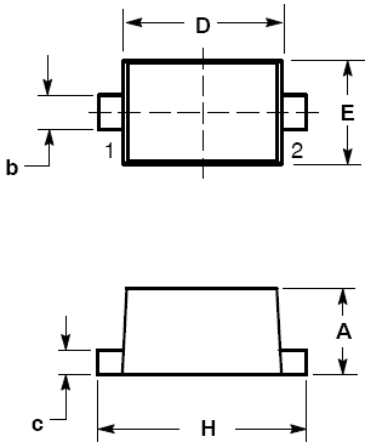
FEATURES

- Fast switching speed
- Low reverse leakage current

MECHANICAL DATA

- Case: SOD-523 Plastic
- Case material: “Green” molding compound, UL flammability classification 94V-0, (No Br. Sb. Cl)
- Moisture sensitivity: Level 1 per J-STD-020D
- Lead free in RoHS 2002/95/EC compliant

SOD-523



SOD-523		
Dim.	Min.	Max.
A	0.50	0.77
b	0.25	0.35
c	0.07	0.20
D	1.10	1.30
E	0.70	0.90
H	1.50	1.70
Dimensions in millimeter		

Maximum Ratings & Thermal Characteristics @ T_A = 25℃ unless otherwise specified

Characteristic	Symbol	1SS400	Units
Non-Repetitive Peak Reverse Voltage	V_{RM}	90	V
DC Blocking Voltage	V_R	80	V
Forward Continuous Current	I_{FM}	225	mA
Average Rectified Output Current	I_O	100	mA
Peak Forward Surge Current @t=1s	I_{FSM}	0.5	A
Junction Temperature	T_J	125	℃
Storage Temperature Range	T_{STG}	-55~+125	℃

Electrical Characteristics @ T_A = 25℃ unless otherwise specified

Characteristic	Test Condition	Symbol	1SS400	Unit
Maximum Forward Voltage	I_F = 100mA	V_F	1.2	V
Maximum DC Reverse Current at Rated DC Blocking Voltage	V_R = 80V	I_R	0.1	uA
Typical Diode Capacitance	V_R =0V,f=1MHz	C_D	3	pF
Reverse Recovery time	V_R=6V, I_R=I_F=10mA R_L=100Ω	trr	4	ns

REV. 2, Jan-2013, KSYR14

RATING AND CHARACTERISTIC CURVES
1SS400

Fig.1 Typical Forward Characteristics

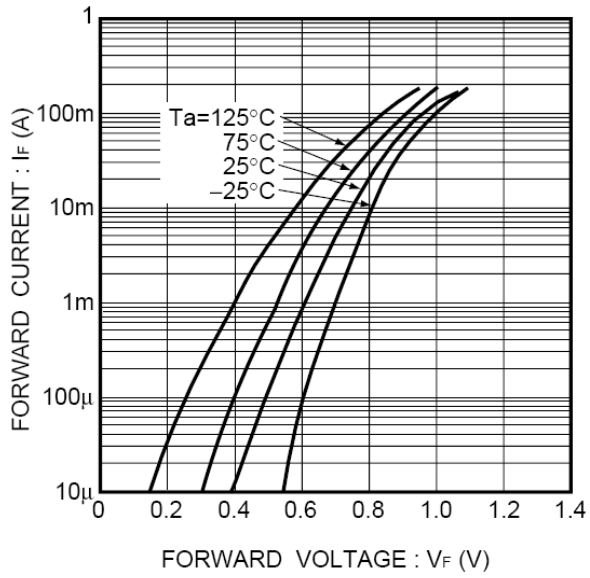


Fig.2 Typical Reverse Characteristics

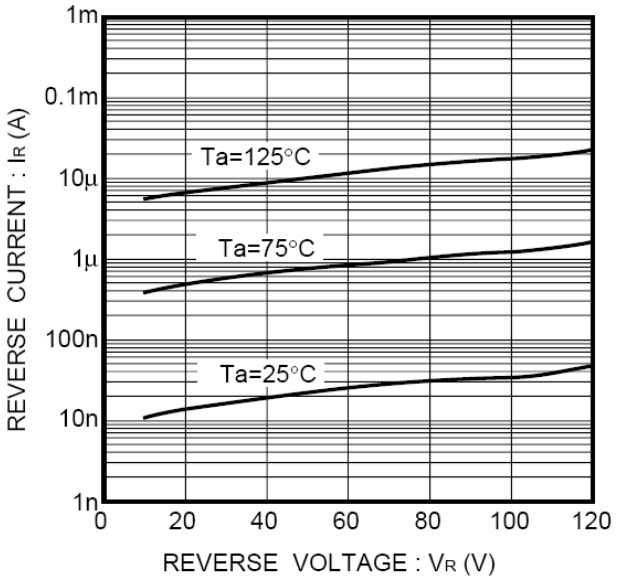


Fig.3 Total Capacitance vs. Reverse Voltage

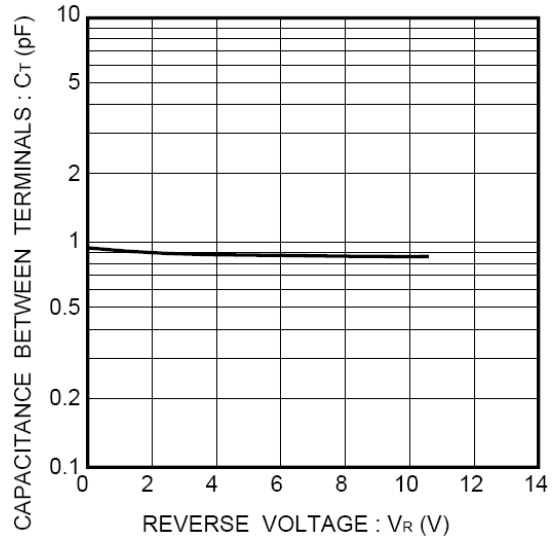


Fig.4 Reverse Recovery Time vs. Forward Current

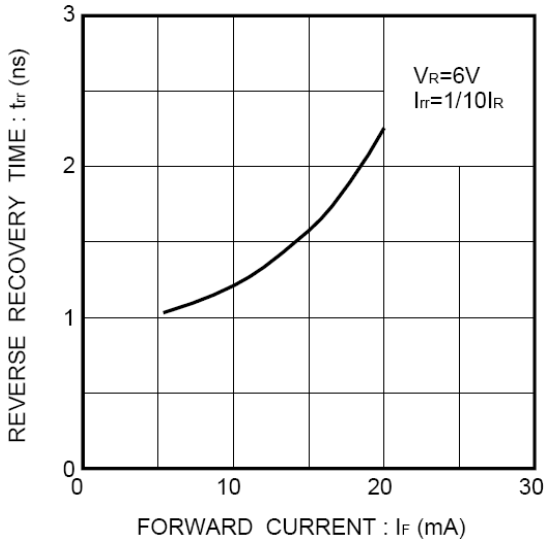


Fig.5 Surge Current Characteristics

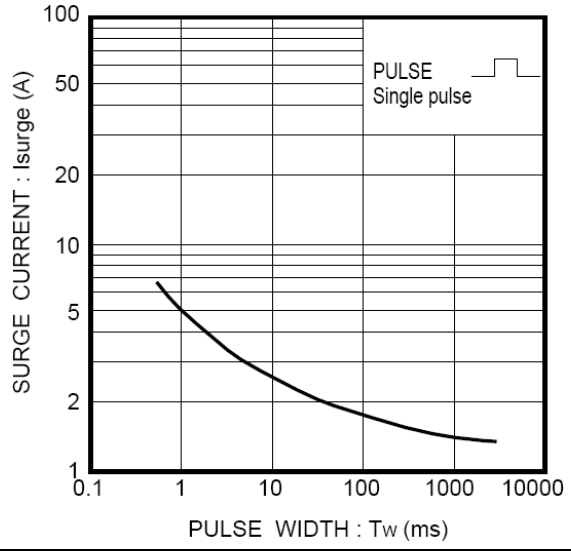
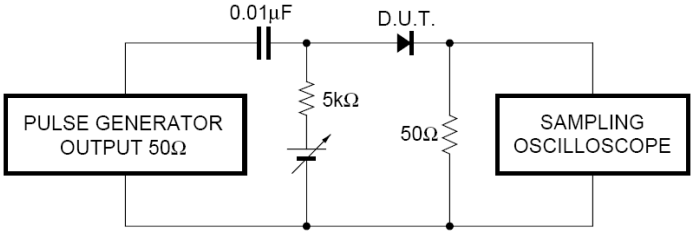


Fig.6 Reverse recovery time (trr) measurement circuit



Device Marking:

Device P/N	Marking code	Equivalent Circuit Diagram
1SS400	A	

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.

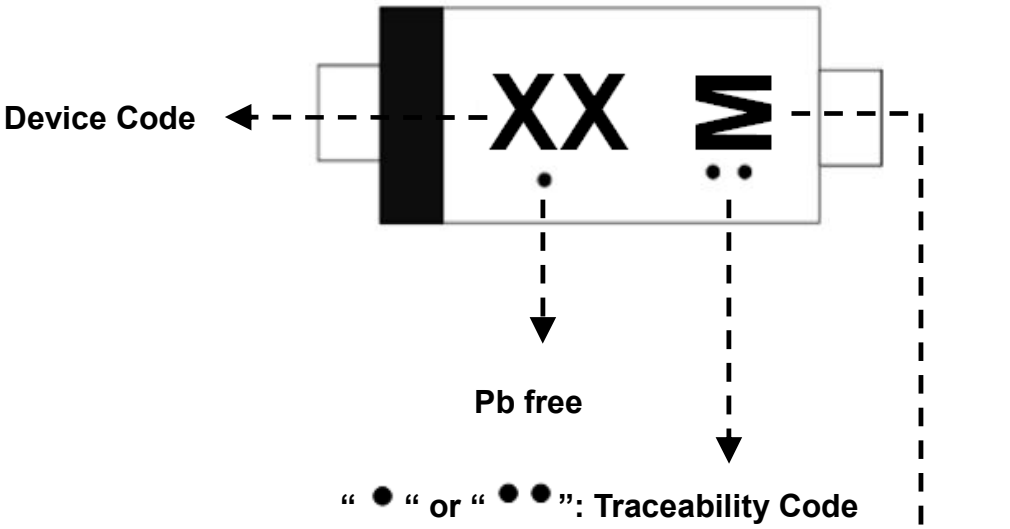
No license is granted by implication or otherwise under any intellectual property rights of LSC.

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

New Marking Rule Notification

Range: In order to have well management in process control, the new marking rule is applied to small signal device including Switching Diode, Transistor and Schottky Diode.

Package: SOD-123 / SOD-323 / SOD-523



Odd Year	Even Year
1	E
2	F
3	H
4	J
5	K
6	L
7	N
8	P
9	U
T	X
V	Y
C	Z