

Switching diode

Dimensions SOD-523

• Applications

High speed switching

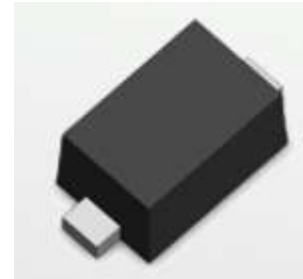
• Features

- 1) Extremely small surface mounting type.
- 2) High Speed.
- 3) High reliability.

• Construction

Silicon epitaxial planar

- We declare that material of product compliance with ROHS requirements.
- S- Prefix for Automotive and Other Applications Requiring Unique Site and Control Change Requirements; AEC-Q101 Qualified and PPAP Capable.



Pin Configuration



ORDRRING INFORMATION

Device	Marking	Shipping
L1SS400T1G S-L1SS400T1G	A	3000/Tape&Reel
L1SS400T5G S-L1SS400T5G	A	8000/Tape&Reel

ABSOLUTE MAXIMUM RATINGS (Ta = 25°C)

Parameter	Symbol	Limits	Unit
Peak reverse voltage	V_{RM}	90	V
DC reverse voltage	V_R	80	V
Peak forward current	I_{FM}	225	mA
Mean rectifying current	I_O	100	mA
Surge current (1s)	I_{surge}	500	mA
Junction temperature	T_J	150	°C
Storage temperature	T_{stg}	- 55 ~ +150	°C

Ω

ELECTRICAL CHARACTERISTICS (Ta = 25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Forward voltage	V_F	—	—	1.2	V	$I_F=100mA$
Reverse current	I_R	—	—	0.1	μA	$V_R=80V$
Capacitance between terminals	C_T	—	0.72	3.0	pF	$V_R=0.5V$, $f=1MHz$
Reverse recovery time	t_{rr}	—	—	4	ns	$V_R=6V$, $I_F=10mA$, $R_L=100$

ELECTRICAL CHARACTERISTIC CURVES

($T_a = 25^\circ\text{C}$)

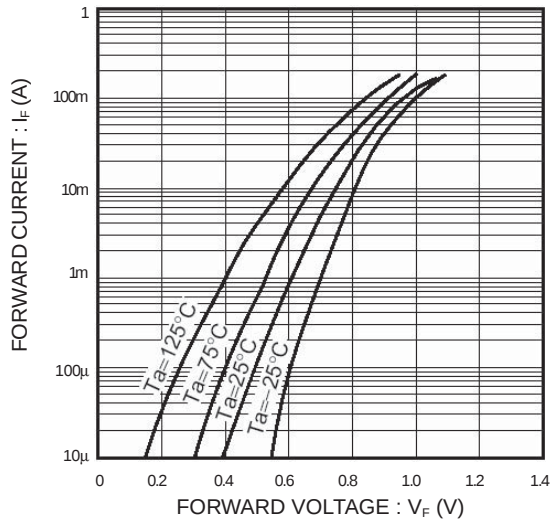


Fig.1 Forward characteristics

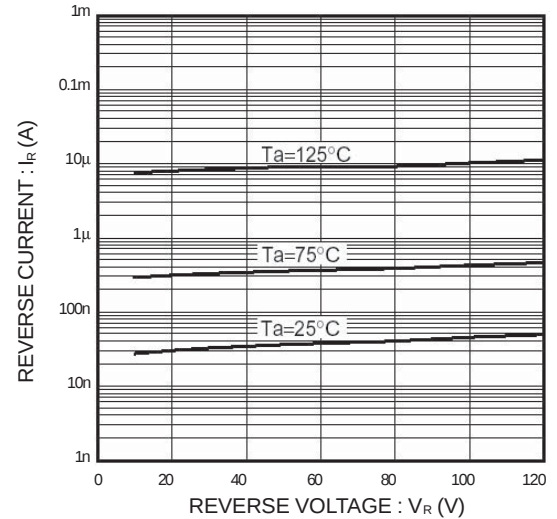


Fig.2 Reverse characteristics

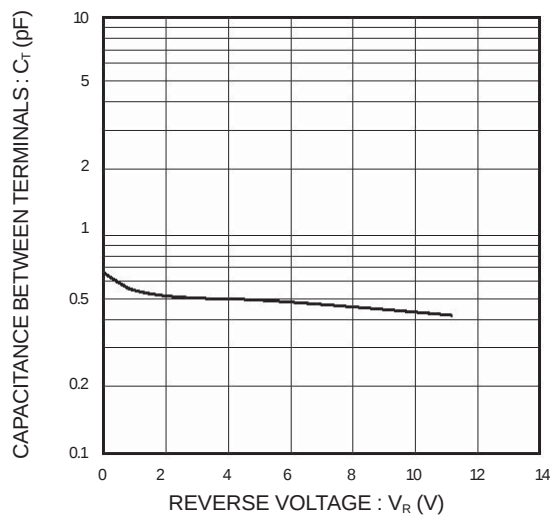


Fig.3 Capacitance between terminals

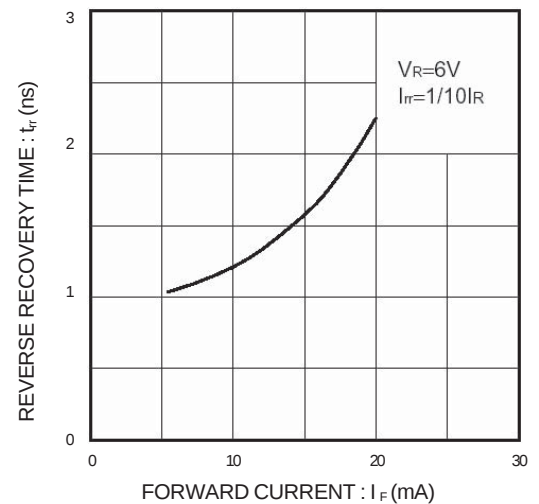


Fig.4 Reverse recovery time characteristics

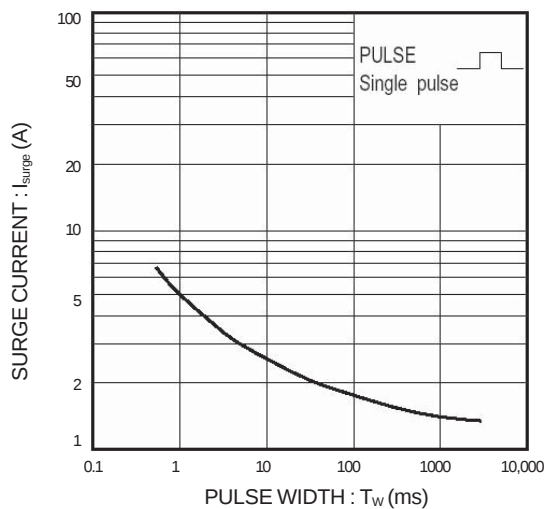


Fig.5 Surge current characteristics

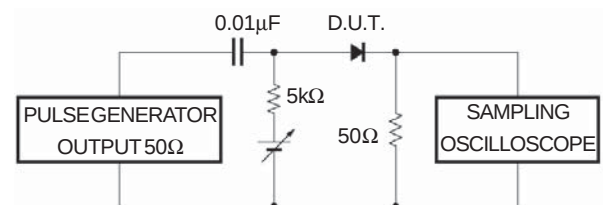
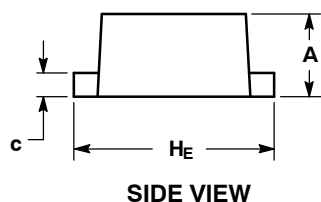
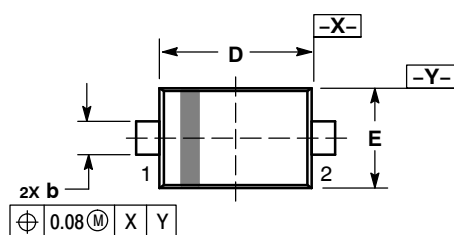
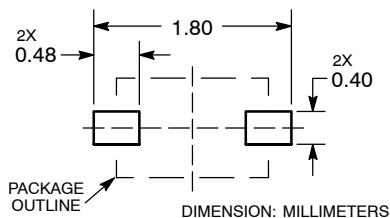


Fig.6 Reverse recovery time (t_{rr}) measurement circuit

SOD-523



RECOMMENDED SOLDERING FOOTPRINT*



NOTES:

1. DIMENSIONING AND TOLERANCING PER ASME Y14.5M, 1994.
2. CONTROLLING DIMENSION: MILLIMETERS.
3. MAXIMUM LEAD THICKNESS INCLUDES LEAD FINISH. MINIMUM LEAD THICKNESS IS THE MINIMUM THICKNESS OF BASE MATERIAL.
4. DIMENSIONS D AND E DO NOT INCLUDE MOLD FLASH, PROTRUSIONS, OR GATE BURRS.

DIM	MILLIMETERS		
	MIN	NOM	MAX
A	0.50	0.60	0.70
b	0.25	0.30	0.35
c	0.07	0.14	0.20
D	1.10	1.20	1.30
E	0.70	0.80	0.90
H E	1.50	1.60	1.70
L	0.30 REF		
L2	0.15	0.20	0.25