

# Switching diode

## • Applications

High speed switching

## • Features

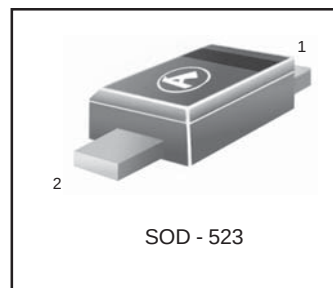
- 1) Extremely small surface mounting type.
- 2) High Speed.
- 3) High reliability.

## • Construction

Silicon epitaxial planar

- We declare that material of product compliance with ROHS requirements.

**L1SS400T1G**



## 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   |

## 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  | $\mu A$ | $V_R=80V$                               |
| Capacitance between terminals | $C_T$    | —    | 0.72 | 3.0  | pF      | $V_R=0.5V$ , $f=1MHz$                   |
| Reverse recovery time         | $t_{rr}$ | —    | —    | 4    | ns      | $V_R=6V$ , $I_F=10mA$ , $R_L=100\Omega$ |

## ORDRING INFORMATION

| Device     | Marking | Shipping        |
|------------|---------|-----------------|
| L1SS400T1G | A       | 3000/Tape&Reel  |
| L1SS400T3G | A       | 10000/Tape&Reel |

# L1SS400T1G

## ELECTRICAL CHARACTERISTIC CURVES

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

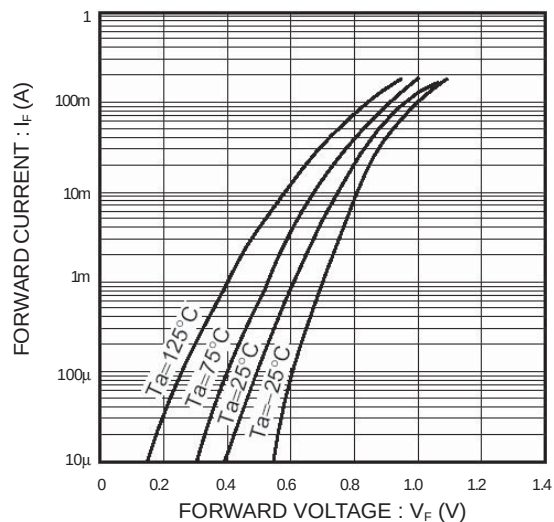


Fig.1 Forward characteristics

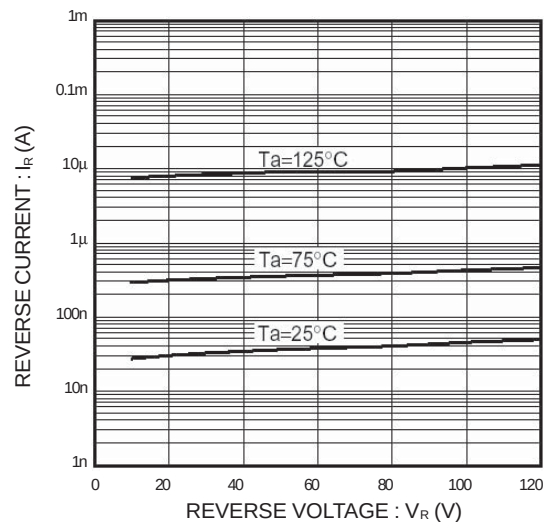


Fig.2 Reverse characteristics

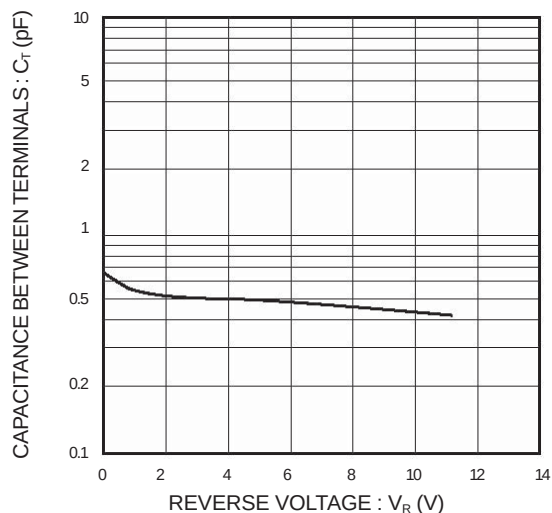


Fig.3 Capacitance between terminals

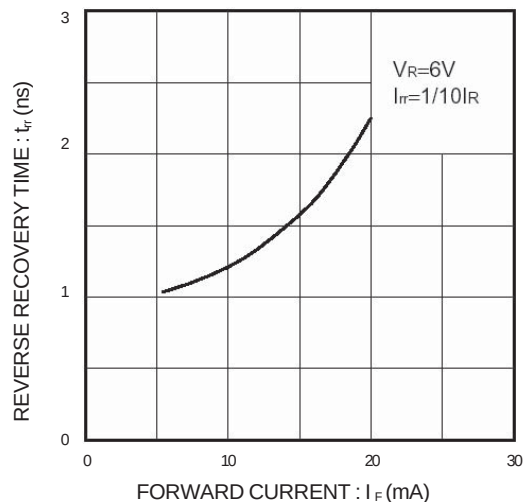


Fig.4 Reverse recovery time characteristics

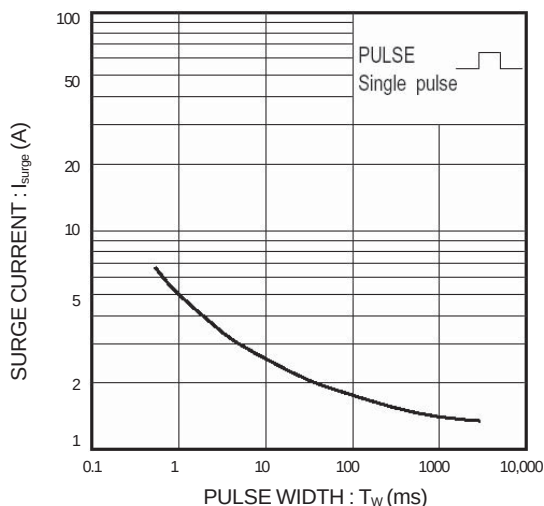


Fig.5 Surge current characteristics

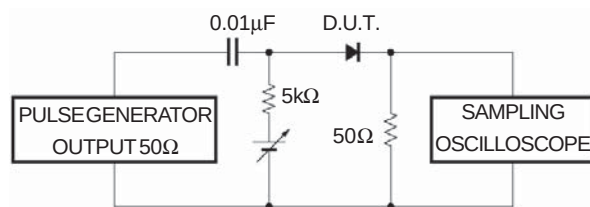
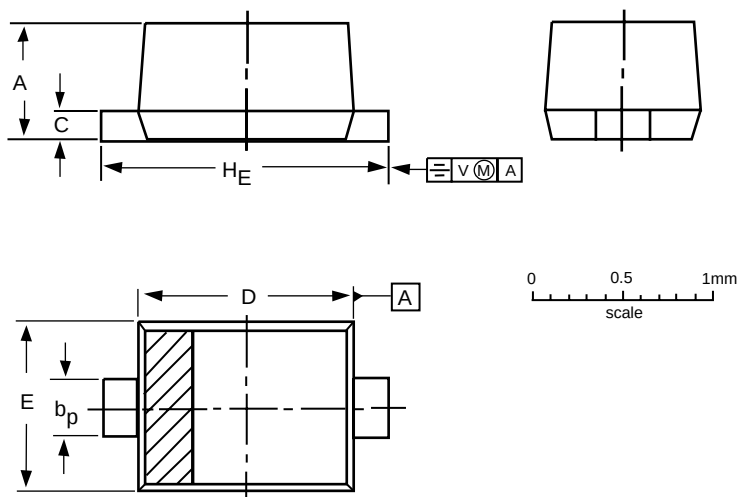


Fig.6 Reverse recovery time ( $t_{rr}$ ) measurement circuit

**L1SS400T1G**
**SOD-523**

**DIMENSIONS (mm are the original dimensions)**

| UNIT | A   | b <sub>p</sub> | c   | D   | E   | H <sub>E</sub> | V    |
|------|-----|----------------|-----|-----|-----|----------------|------|
| mm   | 0.7 | 0.35           | 0.2 | 1.3 | 0.9 | 1.7            | 0.15 |
|      | 0.5 | 0.25           | 0.1 | 1.1 | 0.7 | 1.5            |      |

**Note**

1. The marking bar indicates the cathode.

| OUTLINE<br>VERSION | REFERENCES |       |       | EUROPEAN<br>PROJECTION                                                               | ISSUE DATE |
|--------------------|------------|-------|-------|--------------------------------------------------------------------------------------|------------|
|                    | IEC        | JEDEC | EIAJ  |                                                                                      |            |
| SOD523             |            |       | SC-79 |  | 98-11-25   |