

Switching diode

• Applications

High speed switching

• Features

- 1) Small surface mounting type.
- 2) High Speed.(trr =1.2ns Typ.)
- 3) High reliability with high surge current handling capability.
- 4) We declare that the material of product compliance with RoHS requirements.
- 5) S- Prefix for Automotive and Other Applications Requiring Unique Site and Control Change Requirements; AEC-Q101 Qualified and PPAP Capable.

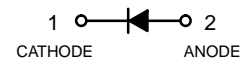
• Construction

Silicon epitaxial planar

• Device Marking and Ordering Information

| Device | Marking | Shipping |
|----------------------------|---------|-----------------|
| L1SS355T1G S-L1SS355T1G | 5D | 3000/Tape&Reel |
| L1SS355T3G S-L1SS355T3G | 5D | 10000/Tape&Reel |

L1SS355T1G
S-L1SS355T1G



• 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 | Conditons |
|-------------------------------|-----------------|------|------|------|------|--|
| 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 | - | - | 3.0 | pF | V _R =0.5V, f=1MHz |
| Reverse recovery time | t _{rr} | - | - | 4 | ns | V _R =6V, I _F =10mA, R _L =100Ω |

L1SS355T1G,S-L1SS355T1G

• Electrical characteristic curves (Ta=25°C)

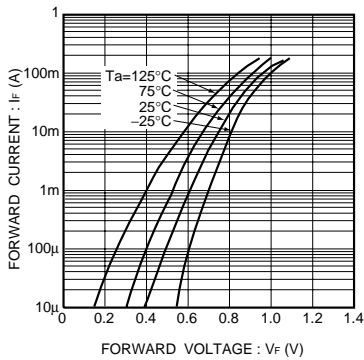


Fig.1 Forward characteristics

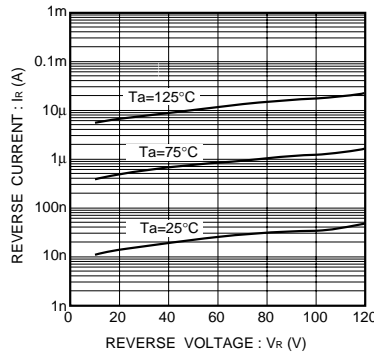


Fig.2 Reverse characteristics

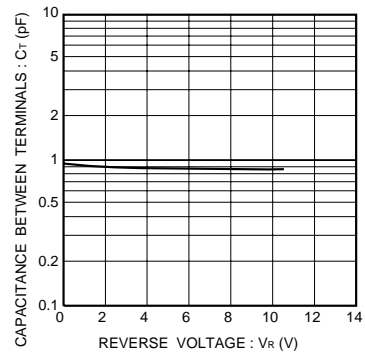


Fig.3 Capacitance between terminals characteristics

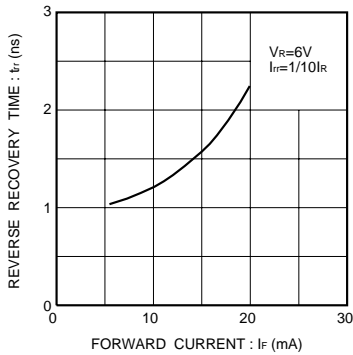


Fig.4 Reverse recovery time characteristics

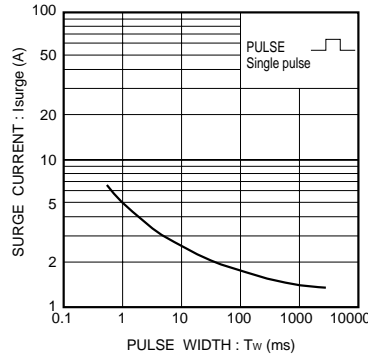


Fig.5 Surge current characteristics

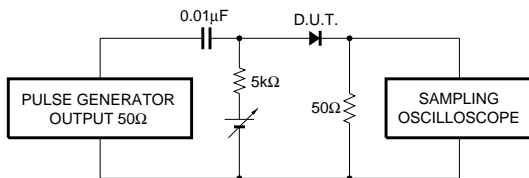
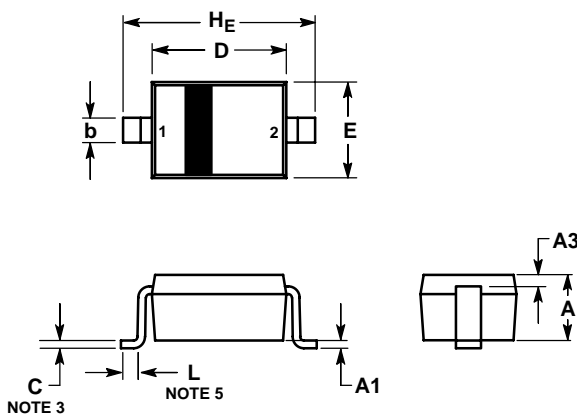


Fig.6 Reverse recovery time (t_r) measurement circuit

L1SS355T1G,S-L1SS355T1G

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NOTES:

1. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M, 1982.
2. CONTROLLING DIMENSION: MILLIMETERS.
3. LEAD THICKNESS SPECIFIED PER L/F DRAWING WITH SOLDER PLATING.
4. DIMENSIONS A AND B DO NOT INCLUDE MOLD FLASH, PROTRUSIONS OR GATE BURRS.
5. DIMENSION L IS MEASURED FROM END OF RADIUS.

| DIM | MILLIMETERS | | | INCHES | | |
|-----|-------------|------|-------|-----------|-------|-------|
| | MIN | NOM | MAX | MIN | NOM | MAX |
| A | 0.80 | 0.90 | 1.00 | 0.031 | 0.035 | 0.040 |
| A1 | 0.00 | 0.05 | 0.10 | 0.000 | 0.002 | 0.004 |
| A3 | 0.15 REF | | | 0.006 REF | | |
| b | 0.25 | 0.32 | 0.4 | 0.010 | 0.012 | 0.016 |
| C | 0.089 | 0.12 | 0.177 | 0.003 | 0.005 | 0.007 |
| D | 1.60 | 1.70 | 1.80 | 0.062 | 0.066 | 0.070 |
| E | 1.15 | 1.25 | 1.35 | 0.045 | 0.049 | 0.053 |
| L | 0.08 | | | 0.003 | | |
| HE | 2.30 | 2.50 | 2.70 | 0.090 | 0.098 | 0.105 |

SOLDERING FOOTPRINT*

