

TOSHIBA Diode Silicon Epitaxial Planar Type

1SS361

Ultra High Speed Switching Application

- AEC-Q101 Qualified (Note1)
- Small package
- Low forward voltage : $V_F(3) = 0.90\text{ V (typ.)}$
- Fast reverse recovery time: $t_{rr} = 1.6\text{ ns (typ.)}$
- Small total capacitance : $C_T = 0.9\text{ pF (typ.)}$

Note1: For detail information, please contact our sales.

Absolute Maximum Ratings (Ta = 25°C)

| Characteristic | Symbol | Rating | Unit |
|--------------------------------|--------------------|------------|------|
| Maximum (peak) reverse voltage | V_{RM} | 85 | V |
| Reverse voltage | V_R | 80 | V |
| Maximum (peak) forward current | I_{FM} | 300 * | mA |
| Average forward current | I_O | 100 * | mA |
| Surge current (10ms) | I_{FSM} | 2 * | A |
| Power dissipation | P_D (Note 2, 4) | 120 | mW |
| | P_D (Note 3) | 100 | |
| Junction temperature | T_j (Note 2) | 150 | °C |
| | T_j (Note 3) | 125 | |
| Storage temperature | T_{stg} (Note 2) | -55 to 150 | °C |
| | T_{stg} (Note 3) | -55 to 125 | |

Note: Using continuously under heavy loads (e.g. the application of high temperature/current/voltage and the significant change in temperature, etc.) may cause this product to decrease in the reliability significantly even if the operating conditions (i.e. operating temperature/current/voltage, etc.) are within the absolute maximum ratings.

Please design the appropriate reliability upon reviewing the Toshiba Semiconductor Reliability Handbook ("Handling Precautions"/"Derating Concept and Methods") and individual reliability data (i.e. reliability test report and estimated failure rate, etc).

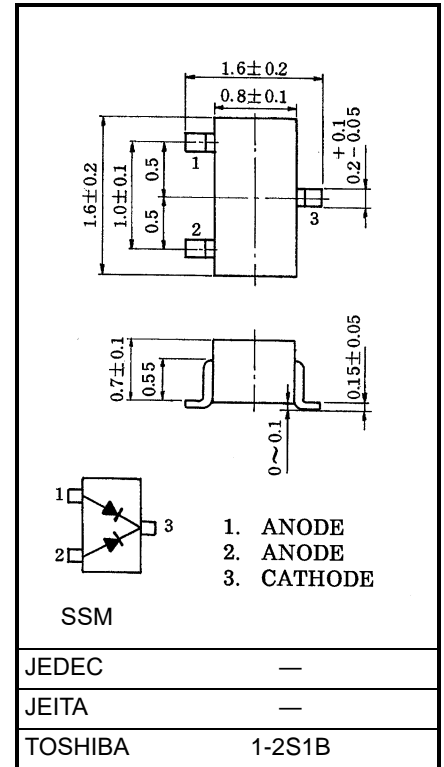
Note 2: For devices with the ordering part number ending in LJ(CT).

Note 3: For devices with the ordering part number in other than LJ(CT).

Note 4: Mounted on a FR4 board. (25.4 mm × 25.4 mm × 1.6 mm, Cu pad: 0.36 mm² × 3)

*: Unit rating. Total rating = Unit rating × 1.5.

Unit: mm



Weight: 2.4mg (typ.)

Start of commercial production
1990-10

Electrical Characteristics (Ta = 25°C)

| Characteristic | Symbol | Test Condition | Min | Typ. | Max | Unit |
|-----------------------|--------------------|---------------------------------|-----|------|------|------|
| Forward voltage | V _F (1) | I _F = 1 mA | — | 0.60 | — | V |
| | V _F (2) | I _F = 10 mA | — | 0.72 | — | |
| | V _F (3) | I _F = 100 mA | — | 0.90 | 1.20 | |
| Reverse current | I _R (1) | V _R = 30 V | — | — | 0.1 | μA |
| | I _R (2) | V _R = 80 V | — | — | 0.5 | |
| Total capacitance | C _T | V _R = 0 V, f = 1 MHz | — | 0.9 | 3.0 | pF |
| Reverse recovery time | t _{rr} | I _F = 10 mA, Fig.1 | — | 1.6 | 4.0 | ns |

Marking

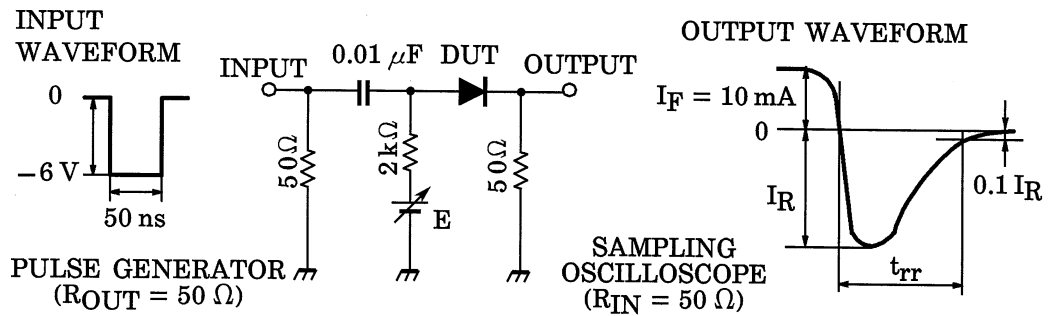
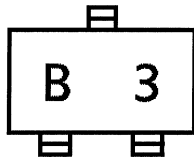
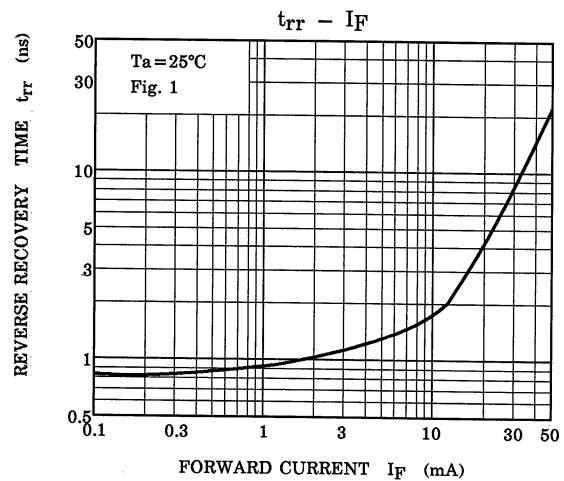
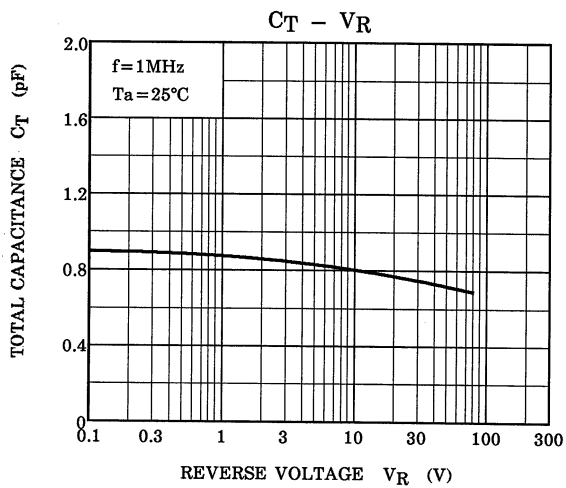
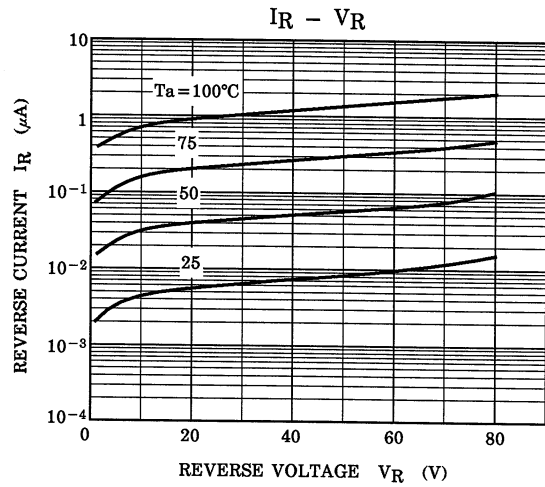
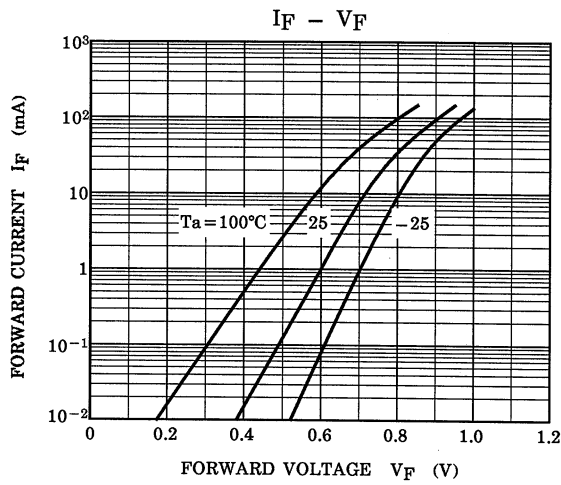


Fig.1 Reverse Recovery Time (t_{rr}) Test Circuit

Characteristics Curves



The above characteristics curves are presented for reference only and not guaranteed by production test, unless otherwise noted.

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