

TOSHIBA Diode Silicon Epitaxial Planar Type

1SS361CT

Ultra High Speed Switching Application

Unit: mm

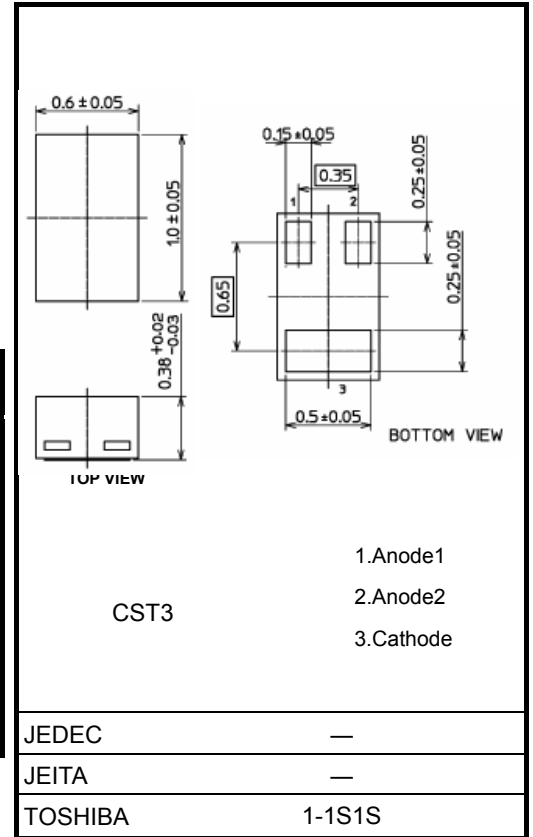
- Small package
- Low forward voltage: $V_F(3) = 0.9 \text{ V (typ.)}$
- Fast reverse recovery time: $t_{rr} = 1.6 \text{ ns (typ.)}$
- Small total capacitance: $C_T = 0.9 \text{ pF (typ.)}$

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 | 100** | mW |
| Junction temperature | T_j | 150 | °C |
| Storage temperature | T_{stg} | -55 to 150 | °C |

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

** : Mounted on FR4 board (10 mm × 10 mm × 1 mm (t))



Weight: 0.75 mg (typ.)

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.

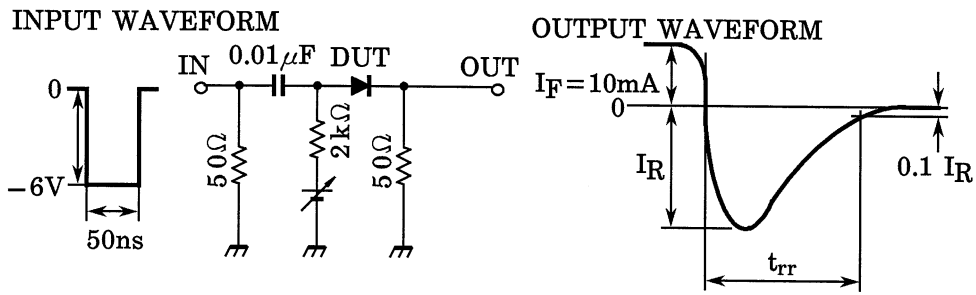
Please design the appropriate reliability upon reviewing the Toshiba Semiconductor Reliability Handbook (“Handling Precautions”/“Derating Concept and Methods”) and individual reliability data (i.e. reliability test report and estimated failure rate, etc).

Electrical Characteristics (Ta = 25°C)

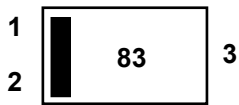
| Characteristic | Symbol | Test Condition | Min | Typ. | Max | Unit |
|-----------------------|----------|---|-----|------|-----|---------------|
| Forward voltage | $V_F(1)$ | $I_F = 1 \text{ mA}$ | — | 0.60 | — | V |
| | $V_F(2)$ | $I_F = 10 \text{ mA}$ | — | 0.72 | — | |
| | $V_F(3)$ | $I_F = 100 \text{ mA}$ | — | 0.90 | 1.2 | |
| Reverse current | $I_R(1)$ | $V_R = 30 \text{ V}$ | — | — | 0.1 | μA |
| | $I_R(2)$ | $V_R = 80 \text{ V}$ | — | — | 0.5 | |
| Total capacitance | C_T | $V_R = 0 \text{ V, } f = 1 \text{ MHz}$ | — | 0.9 | 3.0 | pF |
| Reverse recovery time | t_{rr} | $I_F = 10 \text{ mA, Fig.1}$ | — | 1.6 | — | ns |

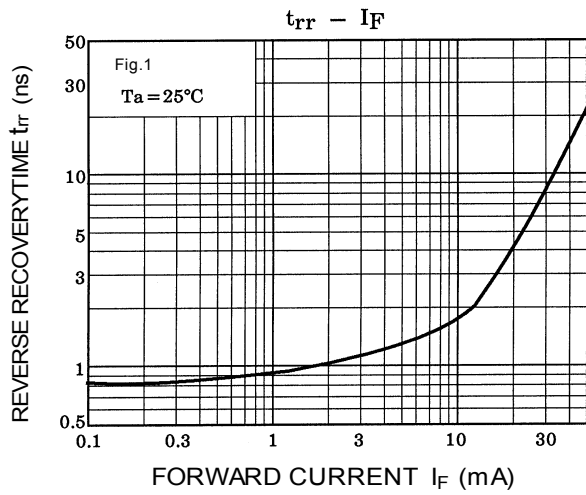
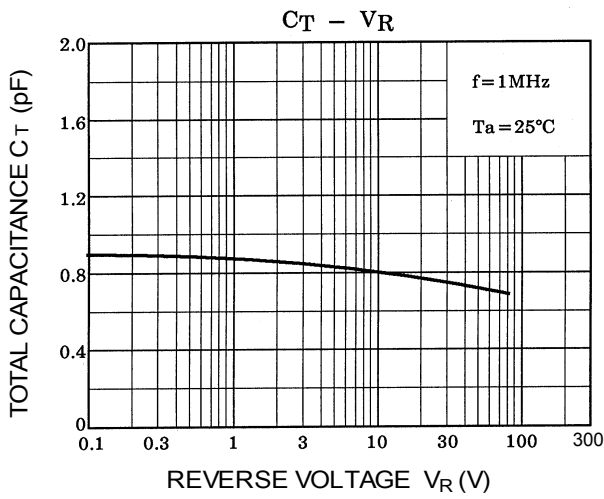
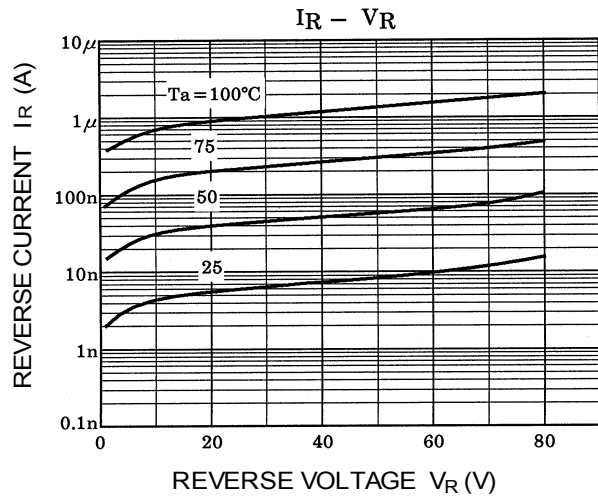
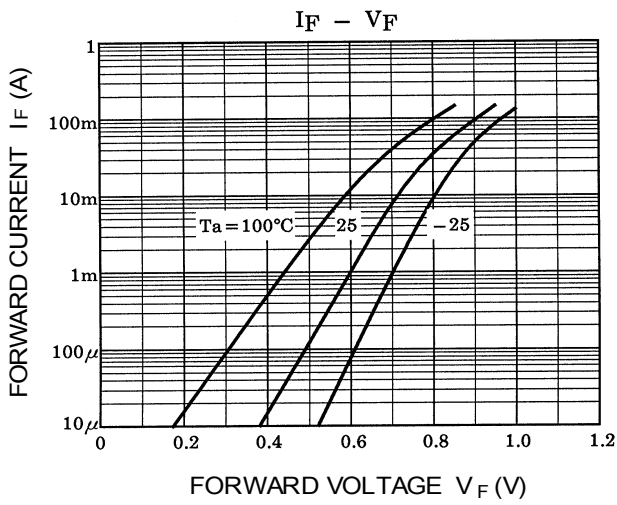
Start of commercial production
2004-08

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



Marking





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