

TOSHIBA Diode Silicon Epitaxial Schottky Barrier Type

1SS394

High Speed Switching Application

- Small package
- Low forward voltage: $V_F(2) = 0.23V$ (typ.) @ $I_F = 5mA$

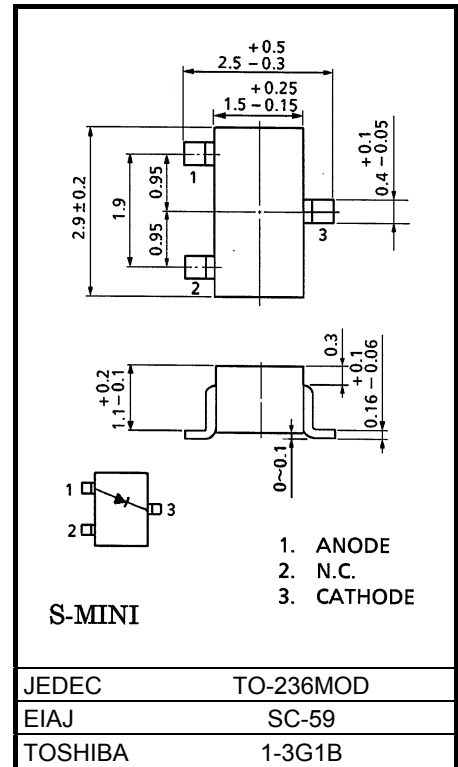
Absolute Maximum Ratings (Ta = 25°C)

| Characteristic | Symbol | Rating | Unit |
|--------------------------------|-----------|---------|------|
| Maximum (peak) reverse Voltage | V_{RM} | 15 | V |
| Reverse voltage | V_R | 10 | V |
| Maximum (peak) forward current | I_{FM} | 200 | mA |
| Average forward current | I_O | 100 | mA |
| Surge current (10ms) | I_{FSM} | 1 | A |
| Power dissipation | P | 150 | mW |
| Junction temperature | T_j | 125 | °C |
| Storage temperature range | T_{stg} | -55~125 | °C |
| Operating temperature range | T_{opr} | -40~100 | °C |

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).

Unit: mm

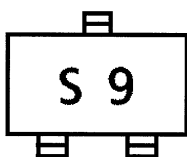


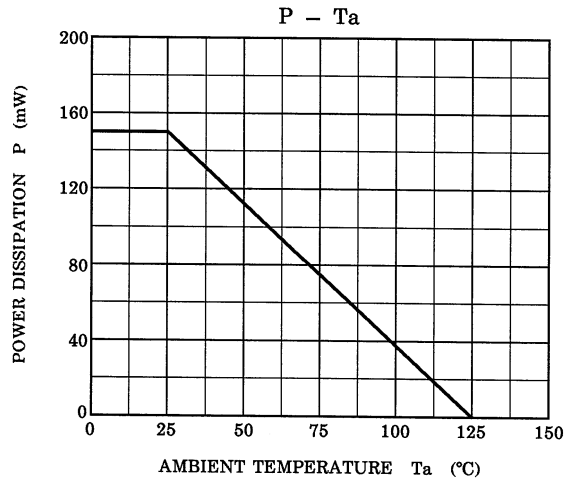
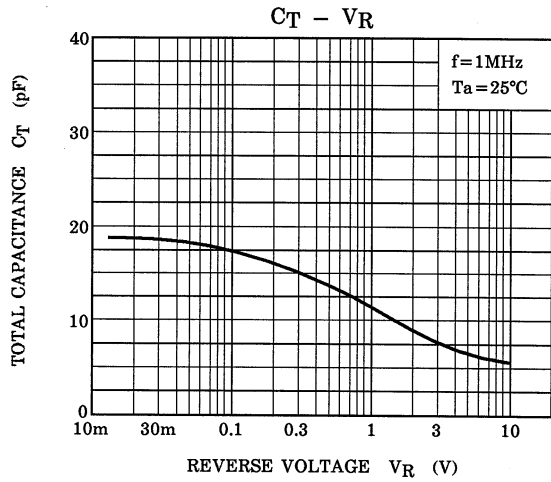
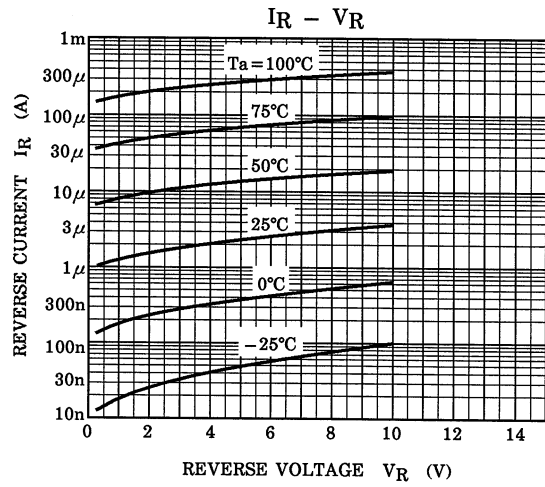
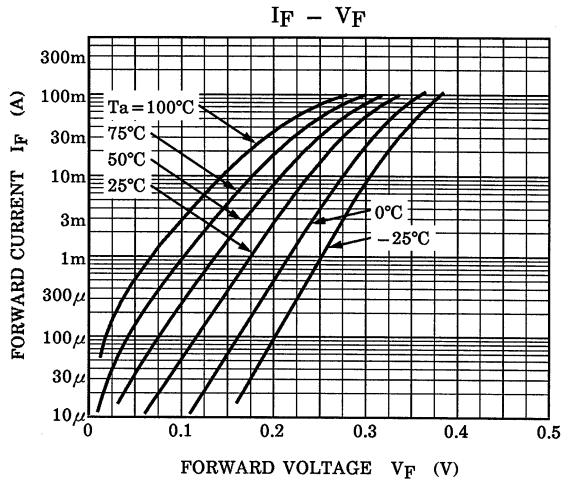
Weight: 0.012g

Electrical Characteristics (Ta = 25°C)

| Characteristic | Symbol | Test Circuit | Test Condition | Min | Typ. | Max | Unit |
|-------------------|----------|--------------|---------------------|-----|------|------|------|
| Forward voltage | $V_F(1)$ | — | $I_F = 1mA$ | — | 0.18 | — | V |
| | $V_F(2)$ | — | $I_F = 5mA$ | — | 0.23 | 0.30 | |
| | $V_F(3)$ | — | $I_F = 100mA$ | — | 0.35 | 0.50 | |
| Reverse current | I_R | — | $V_R = 10V$ | — | — | 20 | μA |
| Total capacitance | C_T | — | $V_R = 0, f = 1MHz$ | — | 20 | 40 | pF |

Marking





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20070701-EN GENERAL

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