

TOSHIBA Diode Silicon Epitaxial Schottky Barrier Type

# 1SS394

## High Speed Switching Application

- AEC-Q101 Qualified (Note1)
- Small package : SC-59
- Low forward voltage : VF(2) = 0.23V (typ.)

Note1: For detail information, please contact to our sales.

## Absolute Maximum Ratings (Ta = 25°C)

| Characteristic                 | Symbol | Rating     | Unit |
|--------------------------------|--------|------------|------|
| Maximum (peak) reverse Voltage | VRM    | 15         | V    |
| Reverse voltage                | VR     | 10         | V    |
| Maximum (peak) forward current | IFM    | 200        | mA   |
| Average forward current        | IO     | 100        | mA   |
| Surge current (10ms)           | IFSM   | 1          | A    |
| Power dissipation              | P      | 150        | mW   |
| Junction temperature           | Tj     | 125        | °C   |
| Storage temperature range      | Tstg   | -55 to 125 | °C   |
| Operating temperature range    | Topr   | -40 to 100 | °C   |

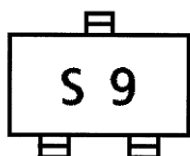
Note: Using continuously under heavy loads (e.g. the application of high temperature/current/voltage and the significant change in temperature, etc.) may cause this product to decrease in the reliability significantly even if the operating conditions (i.e. operating temperature/current/voltage, etc.)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

## Electrical Characteristics (Ta = 25°C)

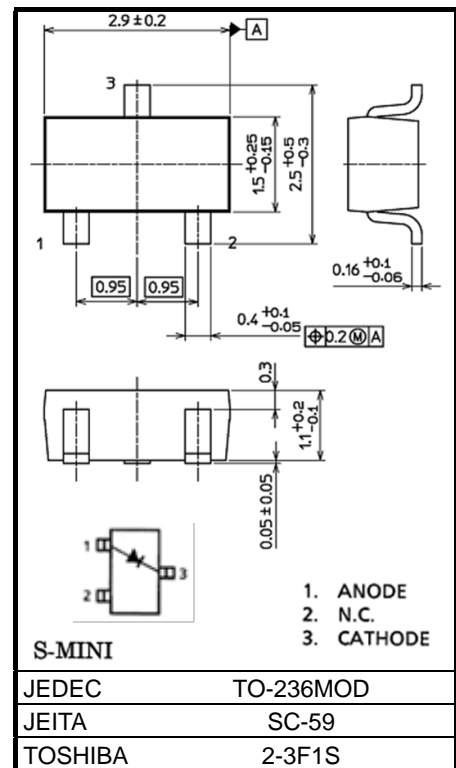
| Characteristic    | Symbol | Test Condition    | Min | Typ. | Max  | Unit |
|-------------------|--------|-------------------|-----|------|------|------|
| Forward voltage   | VF (1) | IF = 1mA          | —   | 0.18 | —    | V    |
|                   | VF (2) | IF = 5mA          | —   | 0.23 | 0.30 |      |
|                   | VF (3) | IF = 100mA        | —   | 0.35 | 0.50 |      |
| Reverse current   | IR     | VR = 10V          | —   | —    | 20   | μA   |
| Total capacitance | CT     | VR = 0V, f = 1MHz | —   | 20   | 40   | pF   |

## Marking

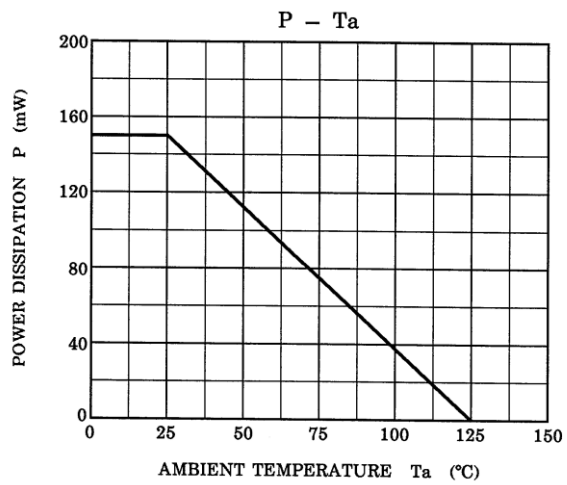
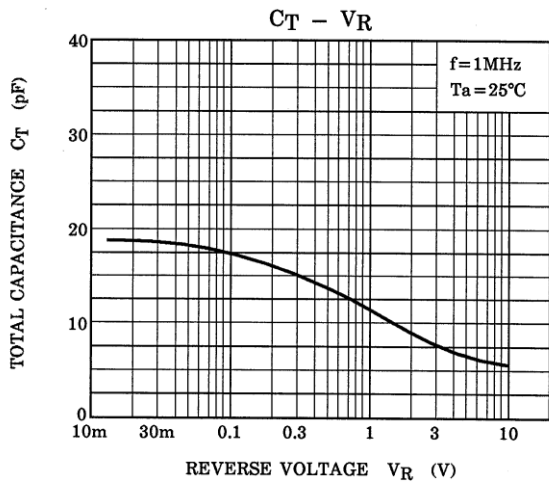
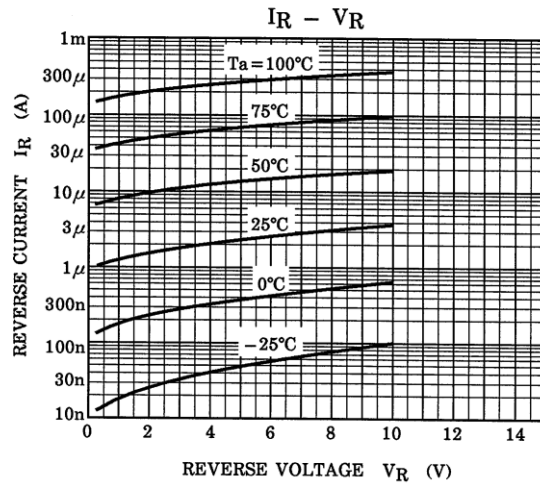
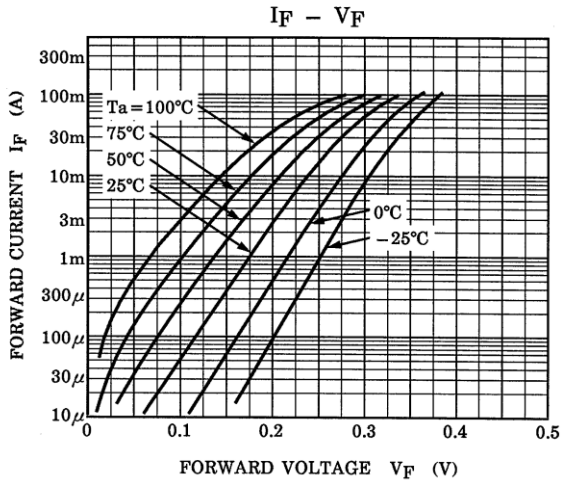


Start of commercial production  
1996-04

Unit: mm



Weight: 12 mg (typ.)



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