

TOSHIBA Diode Silicon Epitaxial Schottky Barrier Type

1SS294

Unit: mm

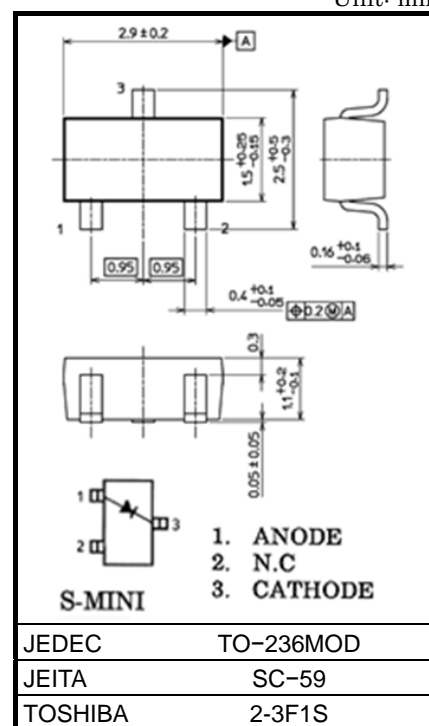
Low Voltage High Speed Switching

- AEC-Q101 Qualified (Note1)
- Low forward voltage : $V_F(3) = 0.54V$ (typ.)
- Low reverse current : $I_R = 5\mu A$ (max)
- Small package : SC-59

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

Absolute Maximum Ratings ($T_a = 25^\circ C$)

| Characteristic | Symbol | Rating | Unit |
|--------------------------------|-----------|------------|------------|
| Maximum (peak) reverse voltage | V_{RM} | 45 | V |
| Reverse voltage | V_R | 40 | V |
| Maximum (peak) forward current | I_{FM} | 300 | mA |
| Average forward current | I_O | 100 | mA |
| Power dissipation | P | 150 | mW |
| Junction temperature | T_j | 125 | $^\circ C$ |
| Storage temperature range | T_{stg} | -55 to 125 | $^\circ C$ |



Weight: 12 mg (typ.)

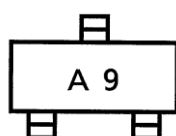
Note: Using continuously under heavy loads (e.g. the application of high temperature/current/voltage and the significant change in temperature, etc.) may cause this product to decrease in the reliability significantly even if the operating conditions (i.e. operating temperature/current/voltage, etc.)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

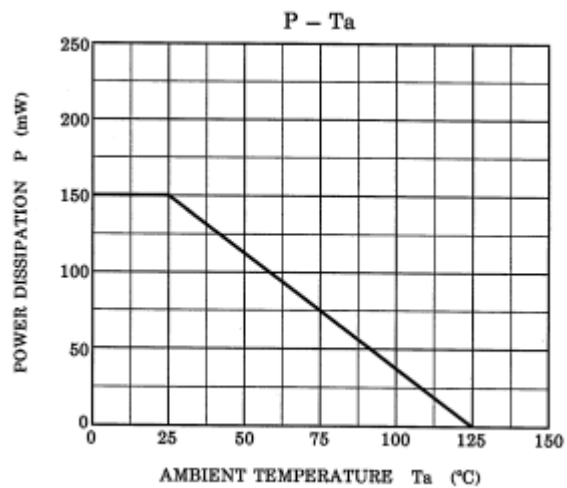
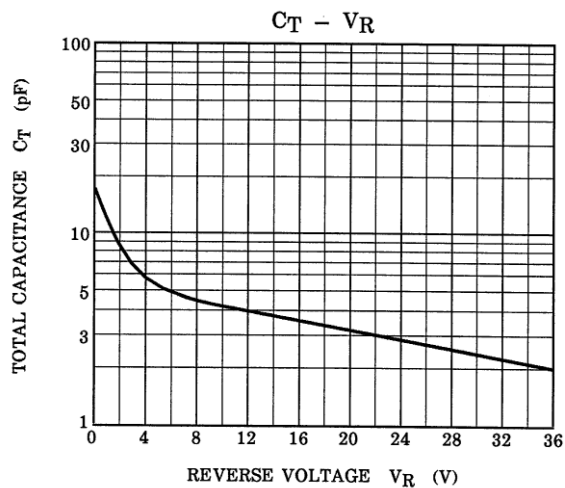
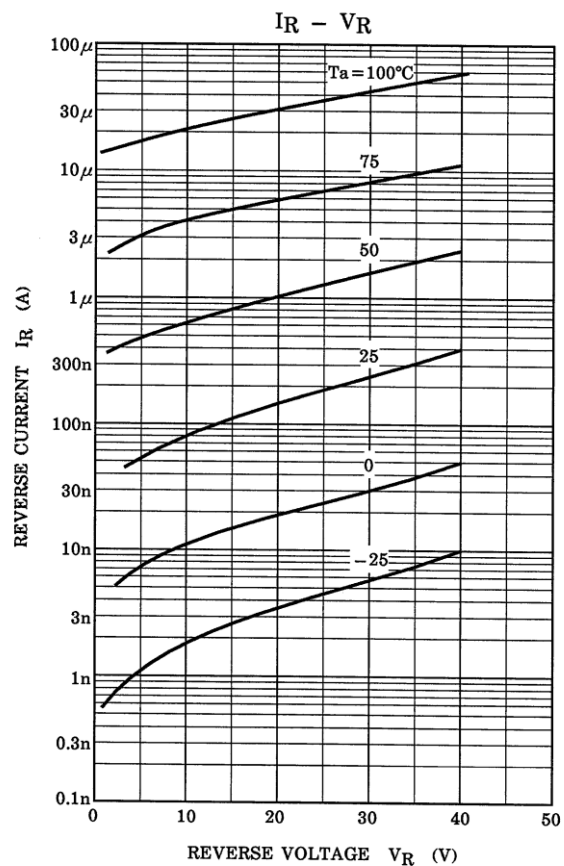
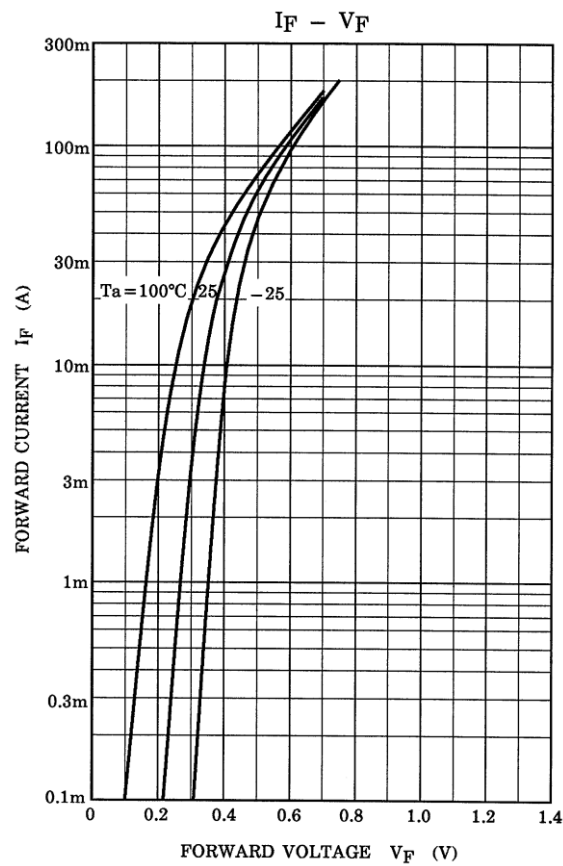
Electrical Characteristics ($T_a = 25^\circ C$)

| Characteristic | Symbol | Test Condition | Min | Typ. | Max | Unit |
|-------------------|----------|----------------------|-----|------|------|---------|
| Forward voltage | $V_F(1)$ | $I_F = 1mA$ | — | 0.28 | — | V |
| | $V_F(2)$ | $I_F = 10mA$ | — | 0.36 | — | |
| | $V_F(3)$ | $I_F = 100mA$ | — | 0.54 | 0.60 | |
| Reverse current | I_R | $V_R = 40V$ | — | — | 5 | μA |
| Total capacitance | C_T | $V_R = 0V, f = 1MHz$ | — | 18 | 25 | pF |

Marking



Start of commercial production
1986-03



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