

# 1SS374

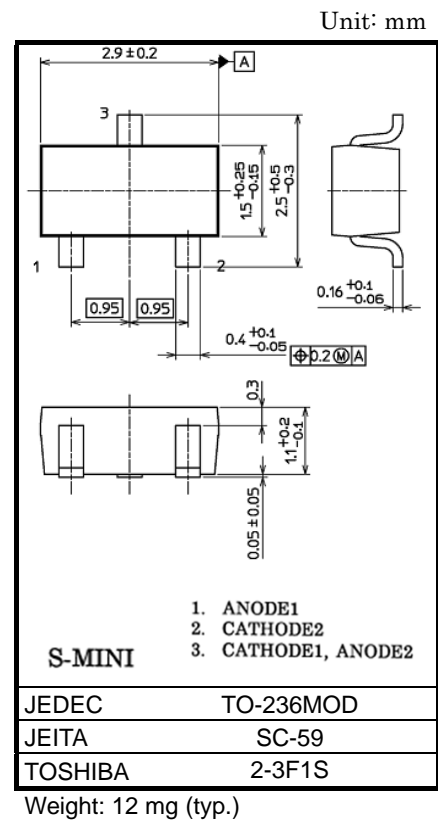
## High Speed Switching Application

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

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

## 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 to 125 | °C   |
| Operating temperature range    | $T_{opr}$ | -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.

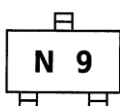
Please design the appropriate reliability upon reviewing the Toshiba Semiconductor Reliability Handbook ("Handling Precautions"/"Derating Concept and Methods") and individual reliability data (i.e. reliability test report and estimated failure rate, etc).

\* Unit rating. Total rating = unit rating × 0.7

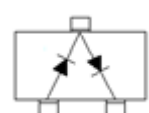
## Electrical Characteristics (Ta = 25°C)

| Characteristic    | Symbol   | 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 | $C_T$    | $V_R = 0V, f = 1MHz$ | —   | 20   | 40   | pF   |

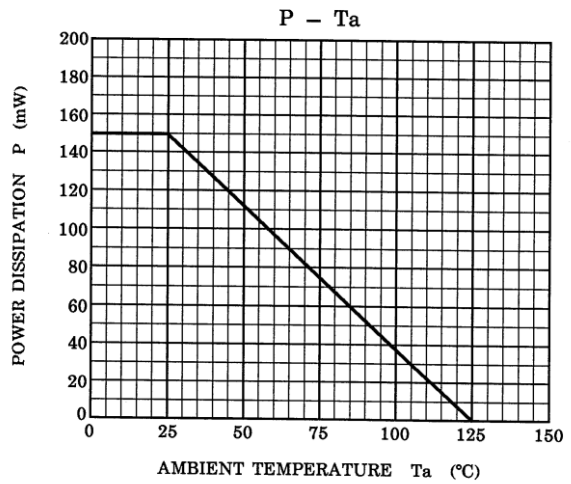
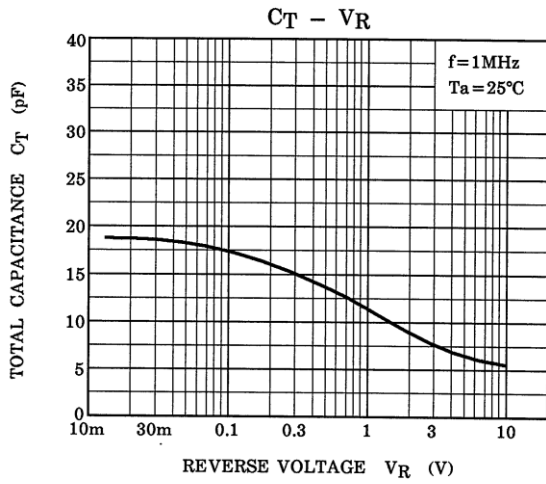
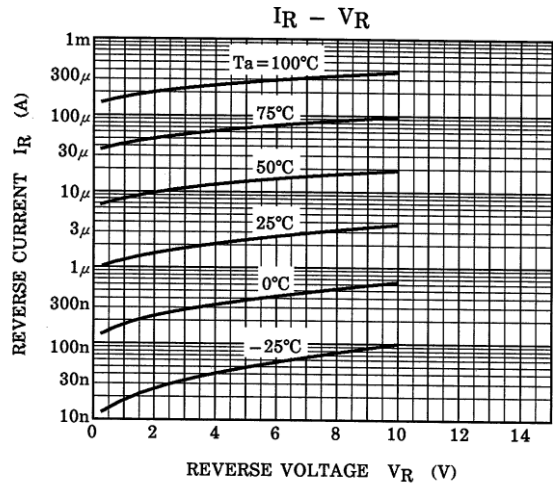
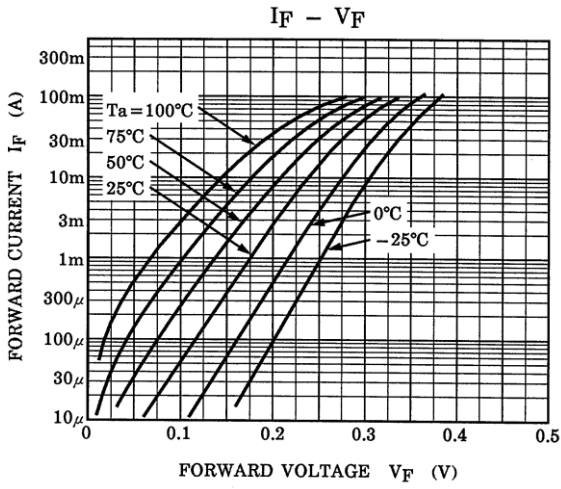
## Marking



## Equivalent Circuit (top View)



Start of commercial production  
1993-04



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