

TOSHIBA Diode Silicon Epitaxial Schottky Barrier Type

1SS319

Low Voltage High Speed Switching

Unit: mm

- Small package : SC-61
- Low forward voltage : $V_F(3) = 0.54V$ (typ.)
- Low reverse current : $I_R = 5\mu A$ (max)

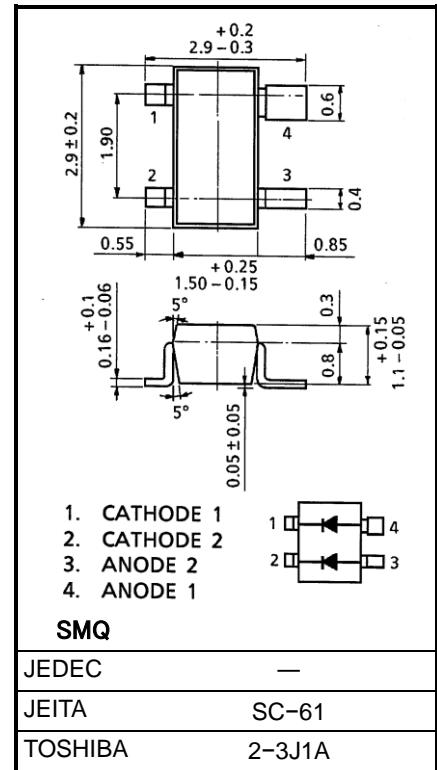
Absolute Maximum Ratings (Ta = 25°C)

| 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 | °C |
| Storage temperature | T_{stg} | -55 to 125 | °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 × 1.5.

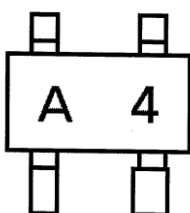


Weight: 0.013 g (typ.)

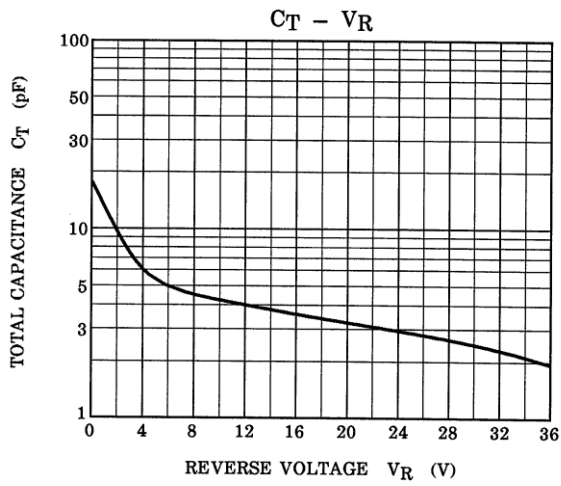
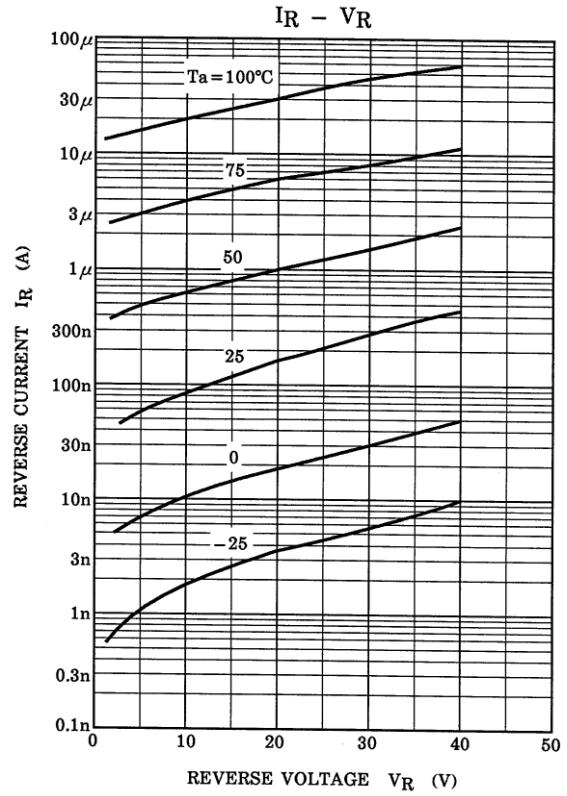
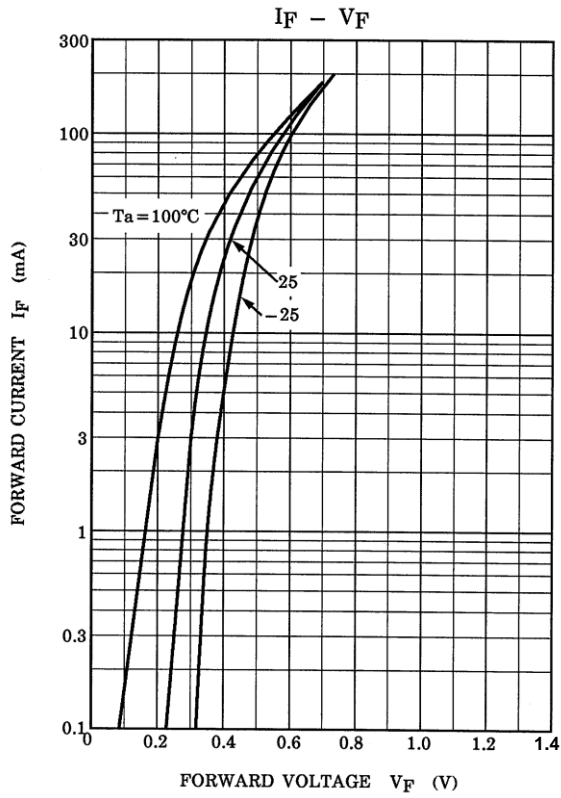
Electrical Characteristics (Ta = 25°C)

| 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 | $V_R = 0, f = 1MHz$ | — | 18 | 25 | pF |

Marking



Start of commercial production
1987-06



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