TOSHIBA Diode Silicon Epitaxial Schottky Barrier Type

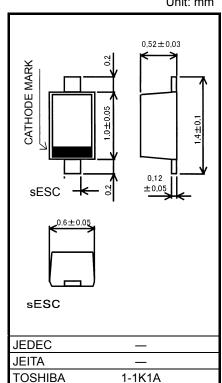
1SS419

High-Speed Switching Applications

- Small package
- Low forward voltage: $V_{F(3)} = 0.56 V (typ.)$
- 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} | 200 | mA |
| Average forward current | Ι _Ο | 100 | mA |
| Surge current (10 ms) | I _{FSM} | 1 | А |
| Power dissipation | P * | 100 | mW |
| Junction temperature | Тj | 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 Weight: 0.0011 g (typ.) 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).

Mounted on a glass-epoxy circuit board of 20 × 20 mm, pad dimensions of 4 × 4 mm.

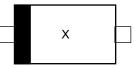
Electrical Characteristics (Ta = 25°C)

| Characteristic | Symbol | Test Condition | Min | Тур. | Max | Unit |
|-------------------|--------------------|---|-----|------|------|------|
| Forward voltage | V _{F (1)} | I _F = 1 mA | _ | 0.28 | _ | v |
| | V _{F (2)} | I _F = 10 mA | _ | 0.36 | _ | |
| | V _{F (3)} | I _F = 50 mA | _ | 0.56 | 0.62 | |
| Reverse current | I _R | V _R = 40 V | _ | _ | 5 | μA |
| Total capacitance | CT | V _R = 0, f = 1 MH _z | _ | 15 | _ | pF |

Equivalent Circuit (Top View)

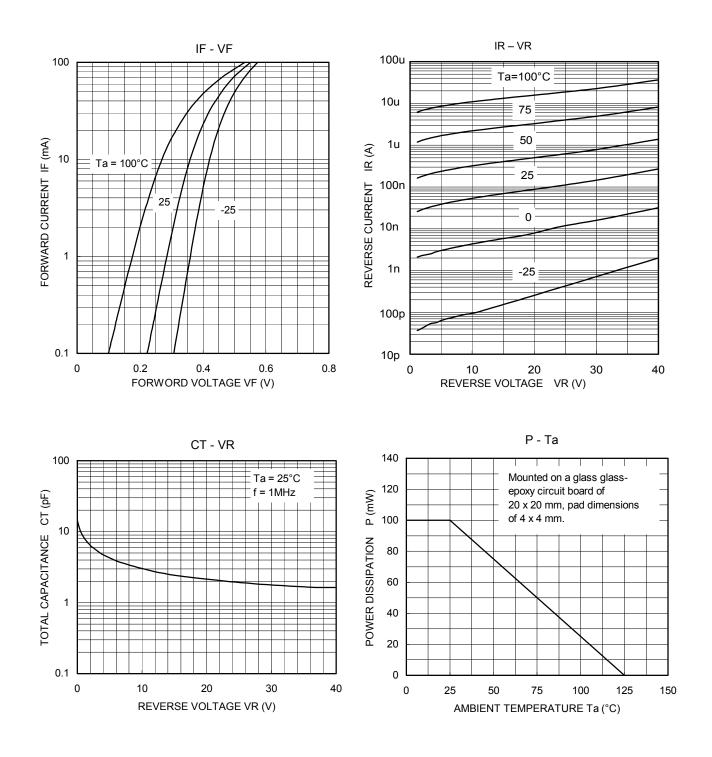








TOSHIBA



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20070701-EN GENERAL

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