

TOSHIBA Diode Silicon Epitaxial Pin Type

1SV172

VHF~UHF Band RF Attenuator Applications

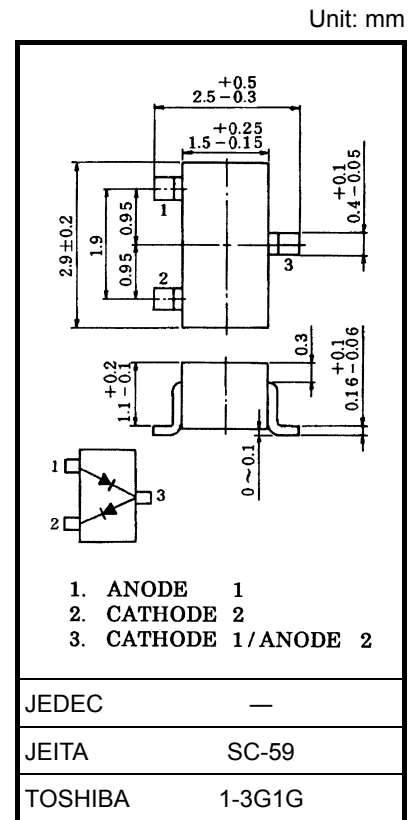
- Useful for small size tuner
- Small total capacitance: $C_T = 0.25$ pF (typ.)
- Low series resistance: $r_s = 3$ Ω (typ.)

Absolute Maximum Ratings (Ta = 25°C)

| Characteristics | Symbol | Rating | Unit |
|---------------------------|-----------|---------|------|
| Reverse voltage | V_R | 50 | V |
| Forward current | I_F | 50 | mA |
| Junction temperature | T_j | 125 | °C |
| Storage temperature range | T_{stg} | -55~125 | °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).



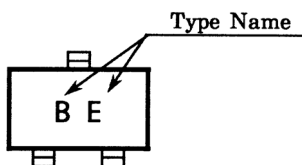
Weight: 0.013 g (typ.)

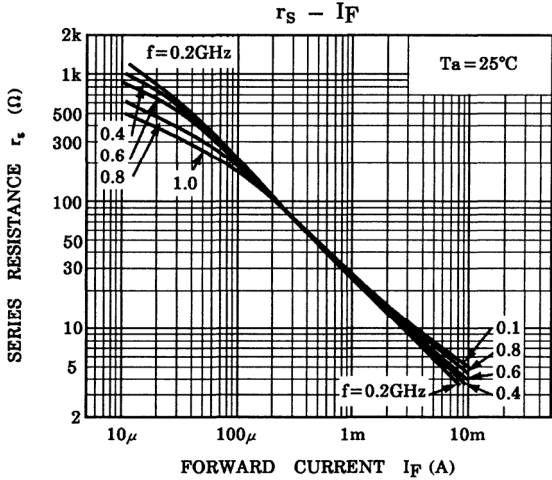
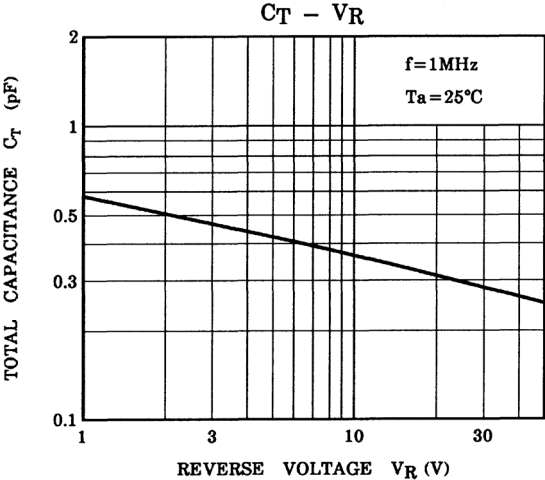
Electrical Characteristics (Ta = 25°C)

| Characteristics | Symbol | Test Condition | Min | Typ. | Max | Unit |
|--------------------------|--------|------------------------------|-----|------|-----|----------|
| Reverse voltage | V_R | $I_R = 10$ μ A | 50 | — | — | V |
| Reverse current | I_R | $V_R = 50$ V | — | — | 0.1 | μ A |
| Forward voltage | V_F | $I_F = 50$ mA | — | 0.95 | — | V |
| Total capacitance (Note) | C_T | $V_R = 50$ V, $f = 1$ MHz | — | 0.25 | — | pF |
| Series resistance | r_s | $I_F = 10$ mA, $f = 100$ MHz | — | 3 | — | Ω |

Note: C_T is measured by 3 terminal method with capacitance bridge.

Marking





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20070701-EN GENERAL

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