

TOSHIBA Diode Silicon Epitaxial Planar Type

1SV329

VCO for UHF Band Radio

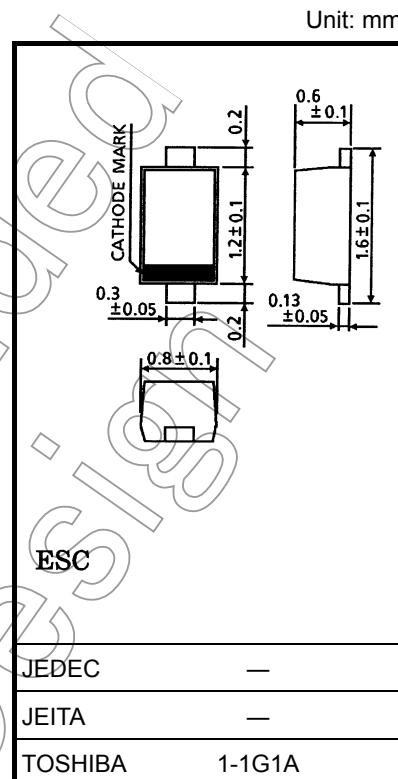
- High capacitance ratio: $C_1 \text{ V}/C_4 \text{ V} = 2.8$ (typ.)
- Low series resistance: $r_s = 0.55 \Omega$ (typ.)
- Useful for small size tuner.

Absolute Maximum Ratings (Ta = 25°C)

| Characteristics | Symbol | Rating | Unit |
|---------------------------|-----------|---------|------|
| Reverse voltage | V_R | 10 | V |
| 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.).

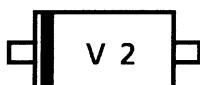


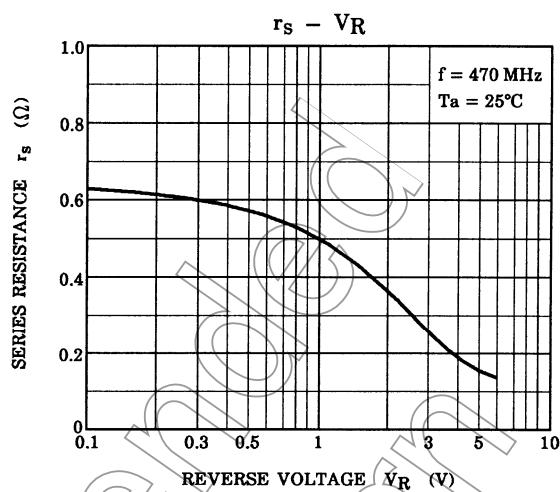
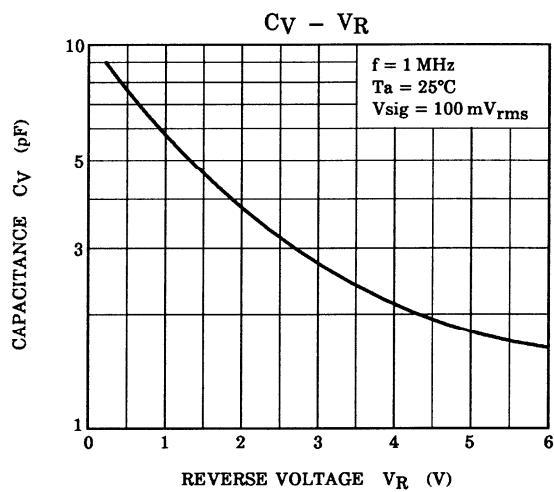
Weight: 0.0014 g (typ.)

Electrical Characteristics (Ta = 25°C)

| Characteristics | Symbol | Test Condition | Min | Typ. | Max | Unit |
|-------------------|-------------------------------|--|------|------|------|------|
| Reverse voltage | V_R | $I_R = 1 \mu\text{A}$ | 10 | — | — | V |
| Reverse current | I_R | $V_R = 10 \text{ V}$ | — | — | 3 | nA |
| Capacitance | $C_1 \text{ V}$ | $V_R = 1 \text{ V}, f = 1 \text{ MHz}$ | 5.7 | — | 6.7 | pF |
| Capacitance | $C_4 \text{ V}$ | $V_R = 4 \text{ V}, f = 1 \text{ MHz}$ | 1.85 | — | 2.45 | pF |
| Capacitance ratio | $C_1 \text{ V}/C_4 \text{ V}$ | — | 2.7 | 2.8 | — | — |
| Series resistance | r_s | $V_R = 1 \text{ V}, f = 470 \text{ MHz}$ | — | 0.55 | 0.7 | Ω |

Note: Signal level when capacitance is measured: $V_{sig} = 100 \text{ mVrms}$

Marking



Not Recommended for New Design

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