

TOSHIBA Variable Capacitance Diode Silicon Epitaxial Planar Type

1SV239

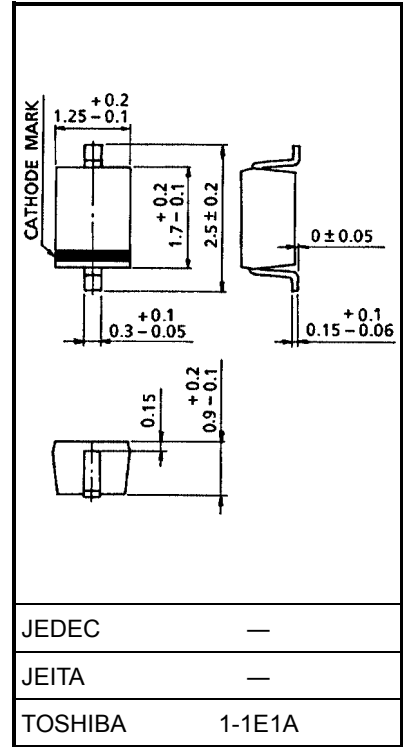
VCO for UHF Radio

- Ultra low series resistance: $r_s = 0.44 \Omega$ (typ.)
- Useful for small size set

Maximum Ratings (Ta = 25°C)

| Characteristics | Symbol | Rating | Unit |
|---------------------------|-----------|---------|------|
| Reverse voltage | V_R | 15 | V |
| Junction temperature | T_j | 125 | °C |
| Storage temperature range | T_{stg} | -55~125 | °C |

Unit: mm

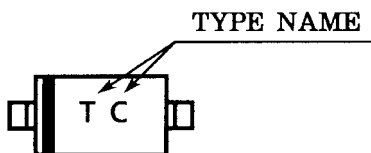


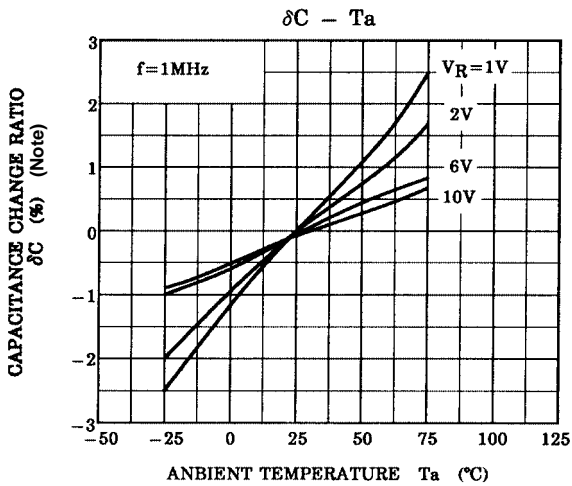
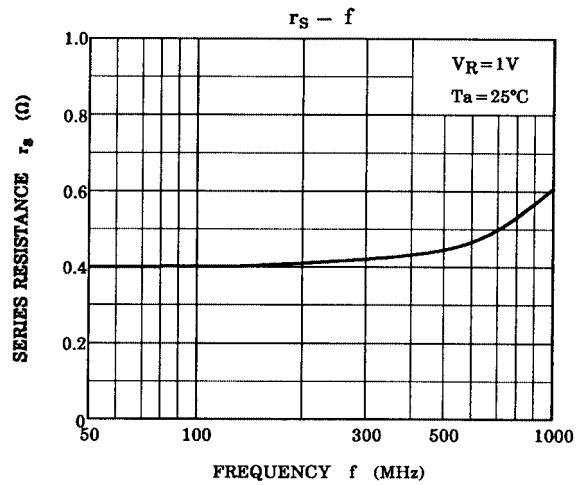
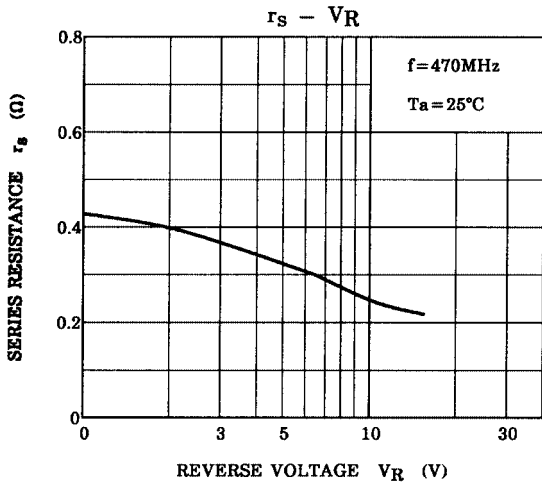
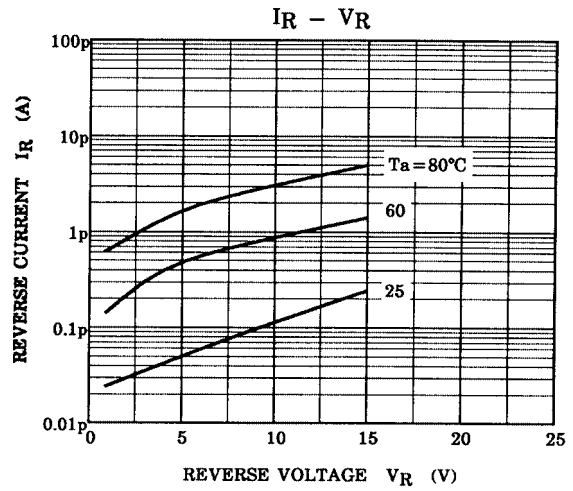
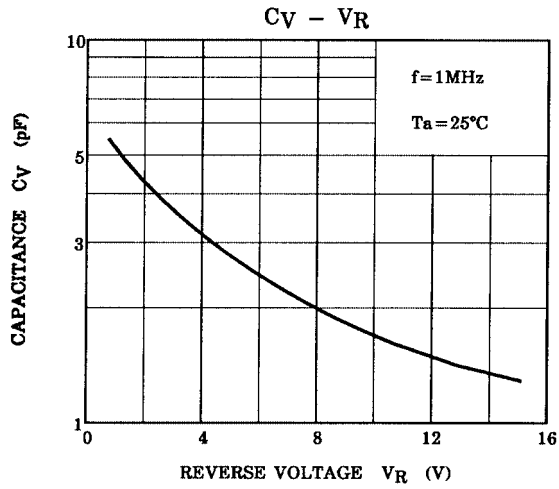
Weight: 0.004 g (typ.)

Electrical Characteristics (Ta = 25°C)

| Characteristics | Symbol | Test Condition | Min | Typ. | Max | Unit |
|-------------------|------------------|--------------------------|-----|------|-----|----------|
| Reverse voltage | V_R | $I_R = 1 \mu A$ | 15 | — | — | V |
| Reverse current | I_R | $V_R = 15 V$ | — | — | 3 | nA |
| Capacitance | C_{2V} | $V_R = 2 V, f = 1 MHz$ | 3.8 | 4.25 | 4.7 | pF |
| Capacitance | C_{10V} | $V_R = 10 V, f = 1 MHz$ | 1.5 | 1.75 | 2.0 | pF |
| Capacitance ratio | C_{2V}/C_{10V} | — | 2.0 | 2.4 | — | — |
| Series resistance | r_s | $V_R = 1 V, f = 470 MHz$ | — | 0.44 | 0.6 | Ω |

Marking





Note: $\delta_C = \frac{C(T_a) - C(25)}{C(25)} \times 100$ (%)

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