

# 1SV279

## VCO for V/UHF Band Radio

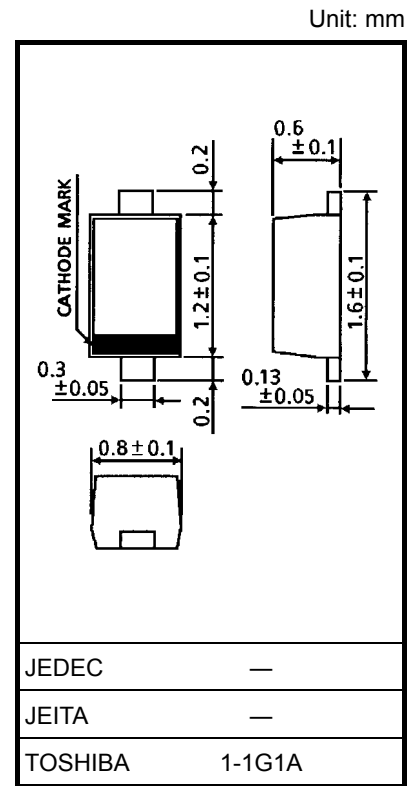
- High capacitance ratio:  $C_{2V} / C_{10V} = 2.5$  (typ.)
- Low series resistance:  $r_s = 0.2 \Omega$  (typ.)
- Useful for small size tuner.

### Absolute 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 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).

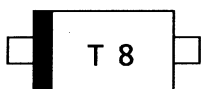


Weight: 0.0014 g (typ.)

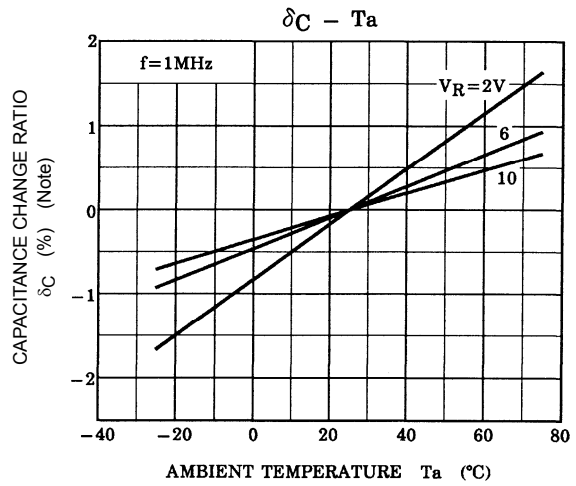
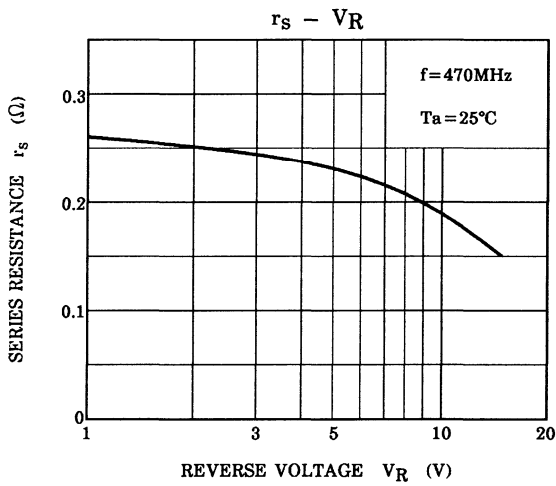
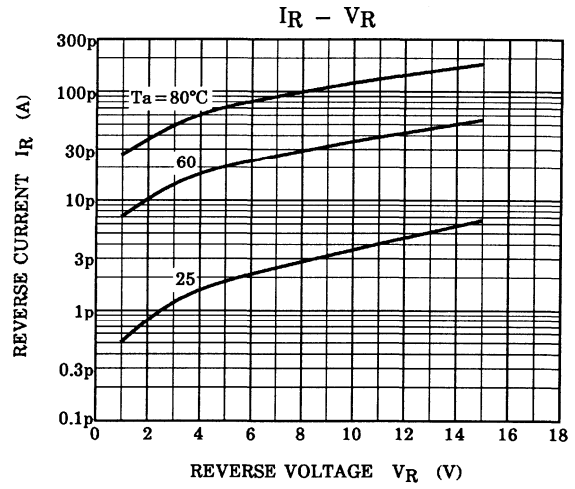
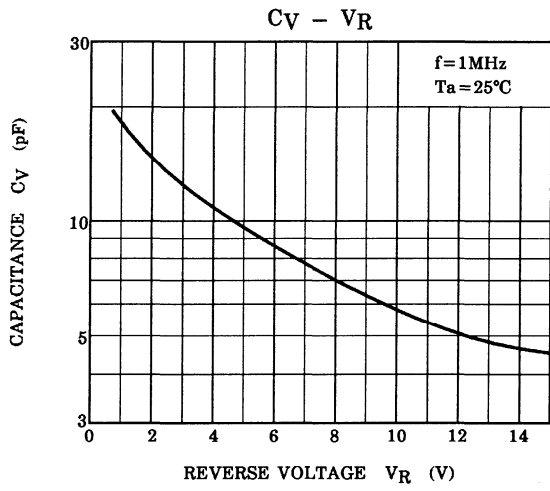
### Electrical Characteristics (Ta = 25°C)

| Characteristics   | Symbol             | Test Condition           | Min | Typ. | Max | Unit     |
|-------------------|--------------------|--------------------------|-----|------|-----|----------|
| Reverse voltage   | $V_R$              | $I_R = 1 \mu A$          | 15  | —    | —   | V        |
| Reverse current   | $I_R$              | $V_R = 15 V$             | —   | —    | 3   | nA       |
| Capacitance       | $C_{2V}$           | $V_R = 2 V, f = 1 MHz$   | 14  | —    | 16  | pF       |
| Capacitance       | $C_{10V}$          | $V_R = 10 V, f = 1 MHz$  | 5.5 | —    | 6.5 | pF       |
| Capacitance ratio | $C_{2V} / C_{10V}$ | —                        | 2.0 | 2.5  | —   | —        |
| Series resistance | $r_s$              | $V_R = 5 V, f = 470 MHz$ | —   | 0.2  | 0.4 | $\Omega$ |

### Marking



Start of commercial production  
1994-07



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

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