

TOSHIBA Variable Capacitance Diode Silicon Epitaxial Planar Type

1SV277

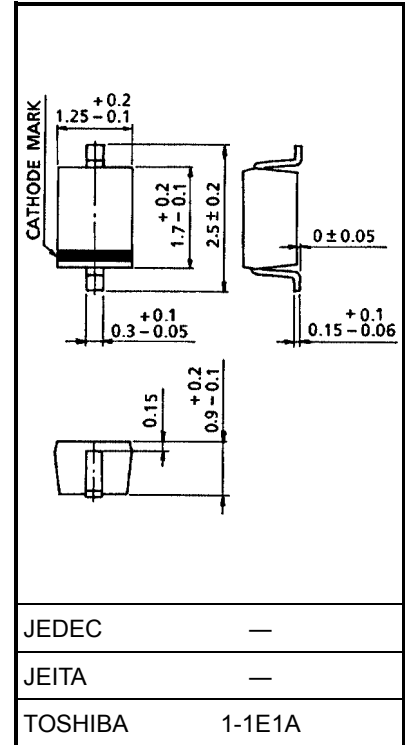
VCO for UHF Band Radio

- High capacitance ratio: $C_{1V}/C_{4V} = 2.3$ (typ.)
- Low series resistance: $r_s = 0.42 \Omega$ (typ.)
- Small package

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

Unit: mm



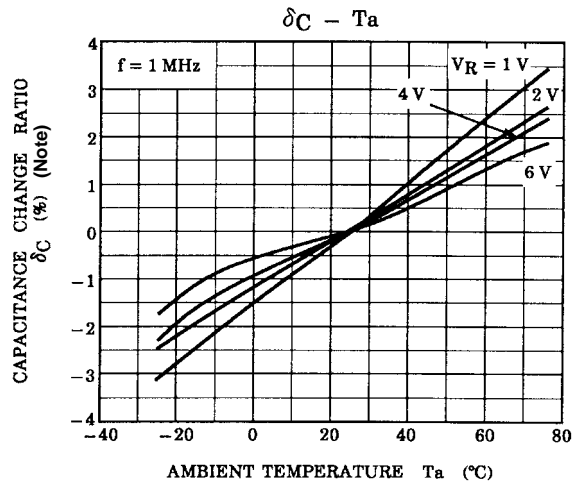
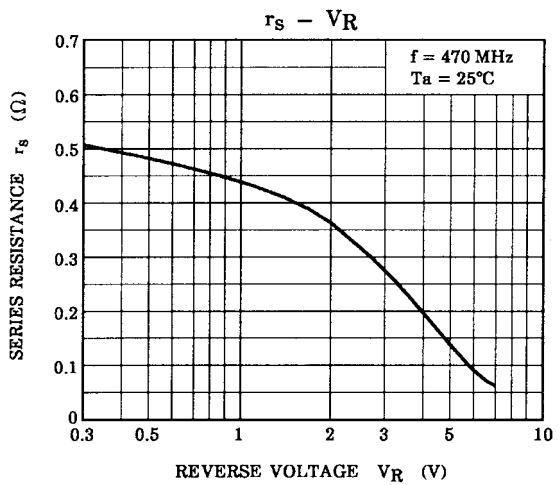
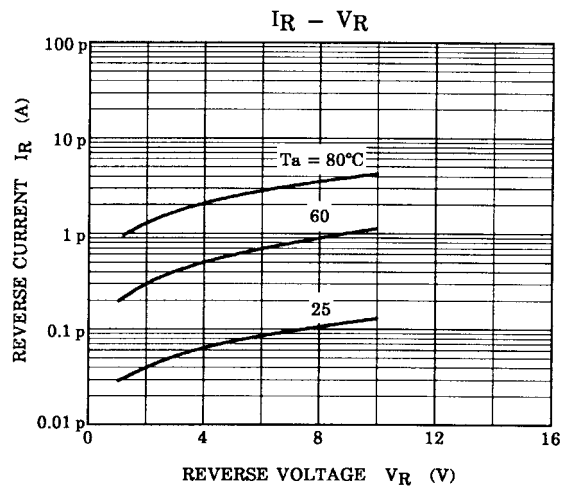
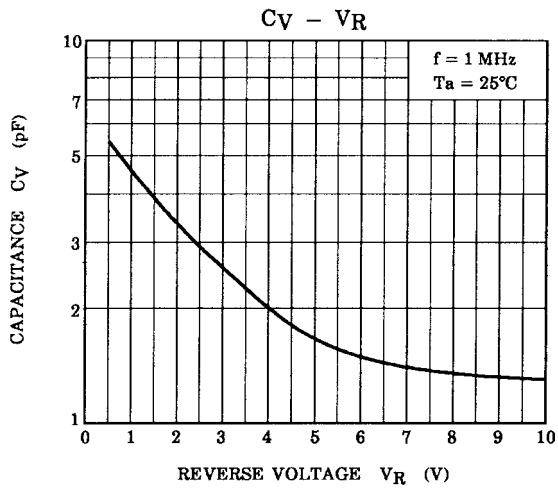
Weight: 0.004 g (typ.)

Electrical Characteristics (Ta = 25°C)

Characteristics	Symbol	Test Condition	Min	Typ.	Max	Unit
Reverse voltage	V_R	$I_R = 1 \mu A$	10	—	—	V
Reverse current	I_R	$V_R = 10 V$	—	—	3	nA
Capacitance	C_{1V}	$V_R = 1 V, f = 1 MHz$	4.0	4.5	4.9	pF
Capacitance	C_{4V}	$V_R = 4 V, f = 1 MHz$	1.85	2.0	2.35	pF
Capacitance ratio	C_{1V}/C_{4V}	—	2.0	2.3	—	—
Series resistance	r_s	$V_R = 1 V, f = 470 MHz$	—	0.42	0.55	Ω

Marking





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

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