

TOSHIBA Variable Capacitance Diode Silicon Epitaxial Planar Type

# 1SV270

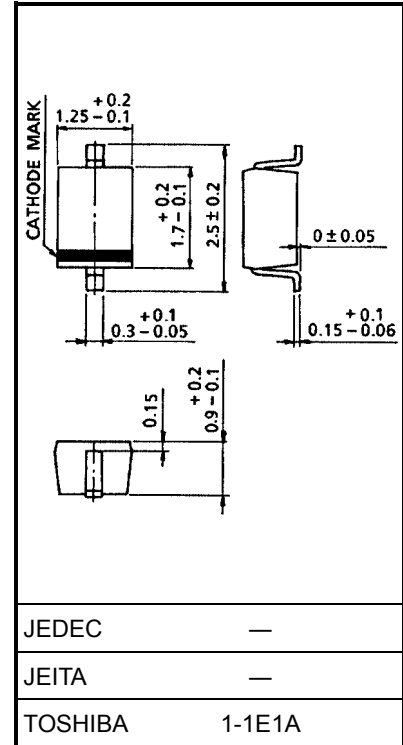
VCO for UHF Band Radio

- High capacitance ratio:  $C1 V/C4 V = 2.0$  (typ.)
- Low series resistance:  $r_s = 0.28 \Omega$  (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

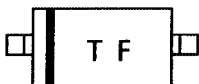


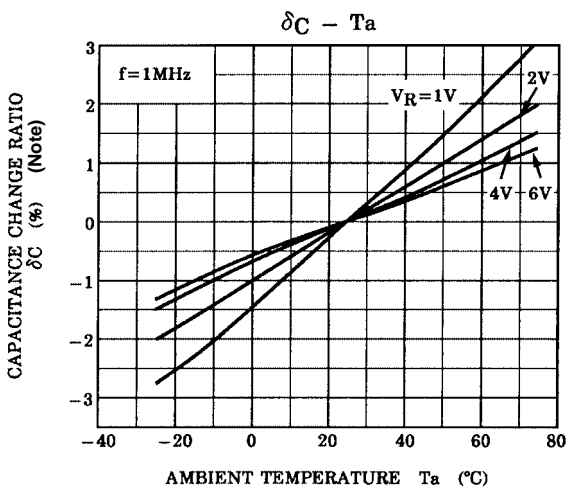
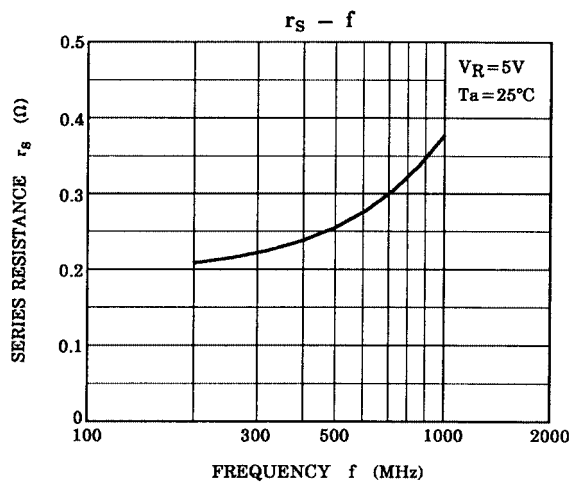
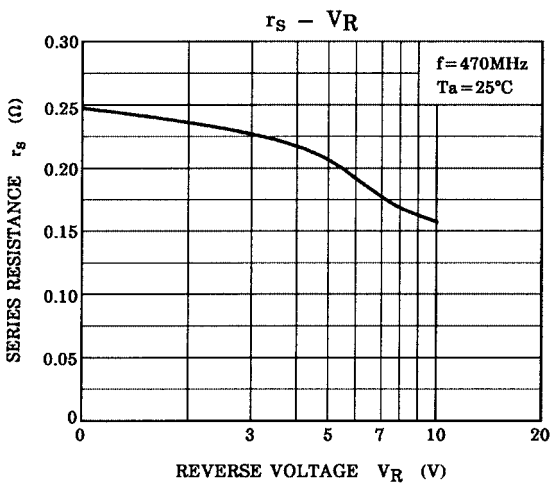
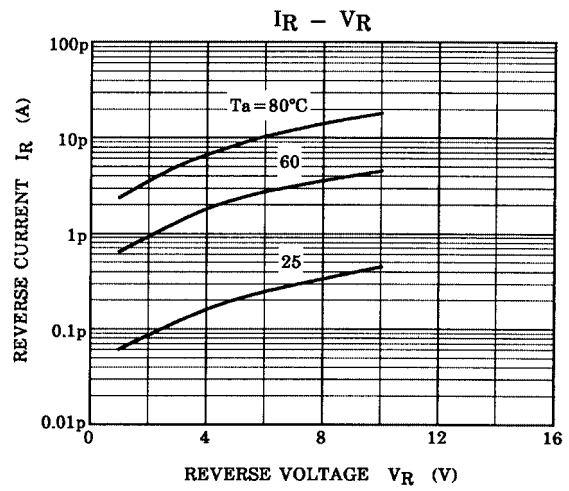
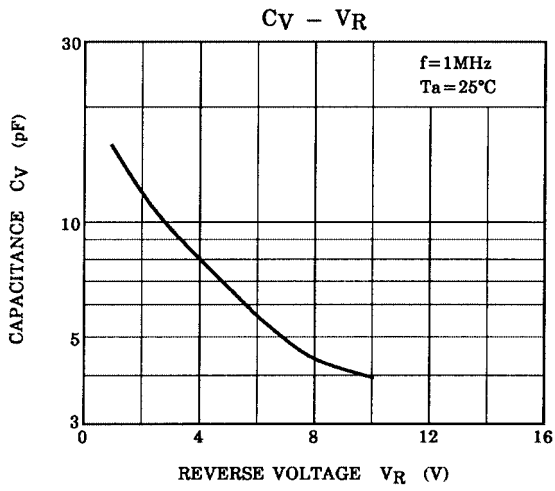
Weight: 0.004 g (typ.)

## 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	$C1 V$	$V_R = 1 V, f = 1 MHz$	15	16	17	pF
Capacitance	$C4 V$	$V_R = 4 V, f = 1 MHz$	7.3	8.0	8.7	pF
Capacitance ratio	$C1 V/C4 V$	—	1.8	2.0	—	—
Series resistance	$r_s$	$V_R = 1 V, f = 470 MHz$	—	0.28	0.5	$\Omega$

## Marking





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

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