

TOSHIBA Variable Capacitance Diode Silicon Epitaxial Planar Type

# 1SV304

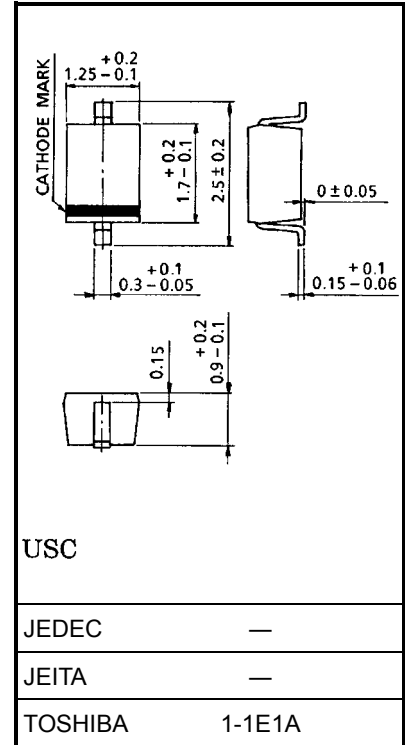
VCO for VHF Band Radio

- Small package
- High capacitance ratio:  $C_{1V}/C_{4V} = 3.0$  (typ.)
- Low series resistance:  $r_s = 0.27 \Omega$  (typ.)

### 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



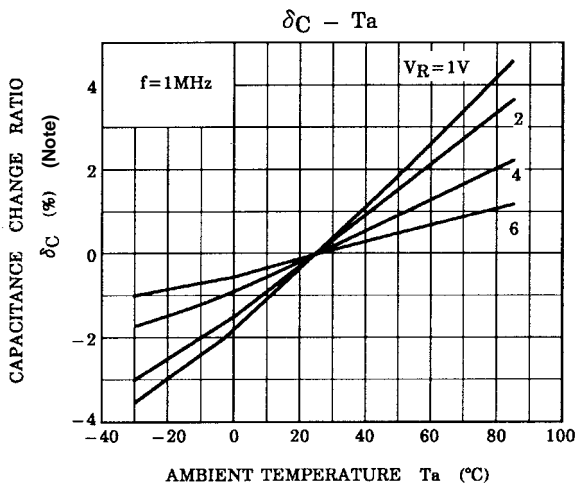
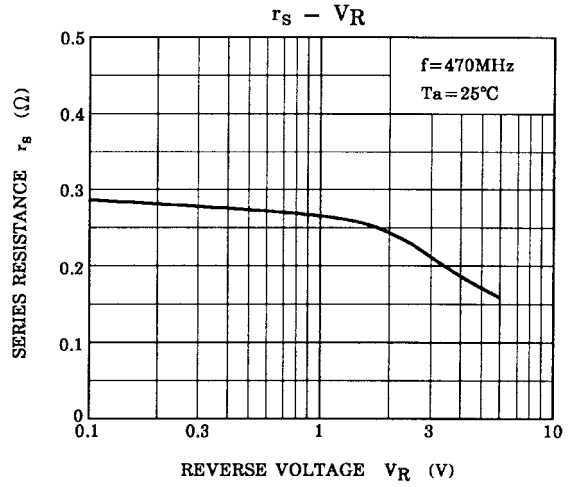
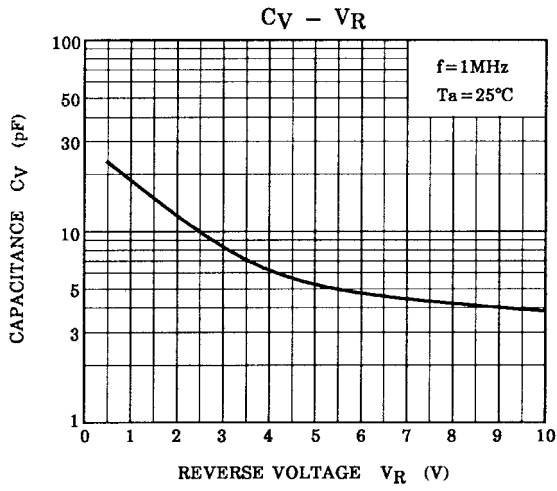
Weight: 0.004 g (typ.)

### 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	$C_{1V}$	$V_R = 1 V, f = 1 MHz$	17.3	18.3	19.3	pF
Capacitance	$C_{4V}$	$V_R = 4 V, f = 1 MHz$	5.3	6.1	6.6	pF
Capacitance ratio	$C_{1V}/C_{4V}$	—	2.8	3	—	—
Series resistance	$r_s$	$V_R = 1 V, f = 470 MHz$	—	0.27	0.32	$\Omega$

### Marking





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

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