

TOSHIBA Variable Capacitance Diode  
Silicon Epitaxial Planar Type

**1SV306**

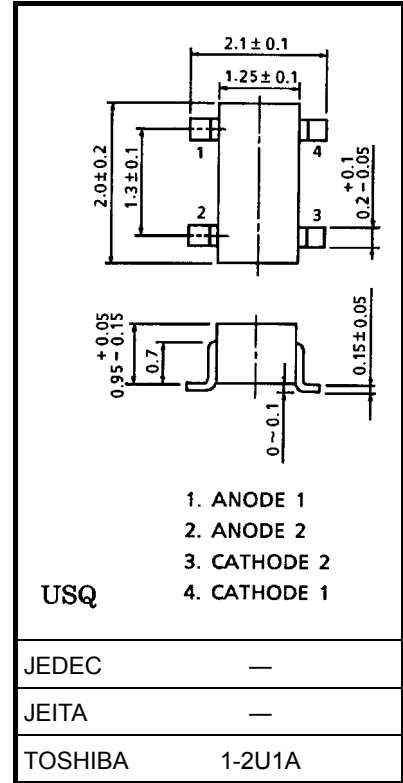
VCO for UHF Band Radio

- Small package
- Ultra low series resistance:  $r_s = 0.20 \Omega$  (typ.)

**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

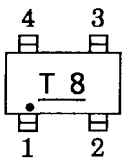


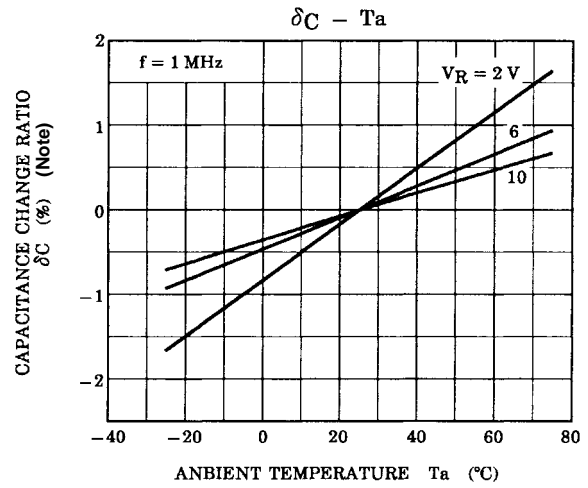
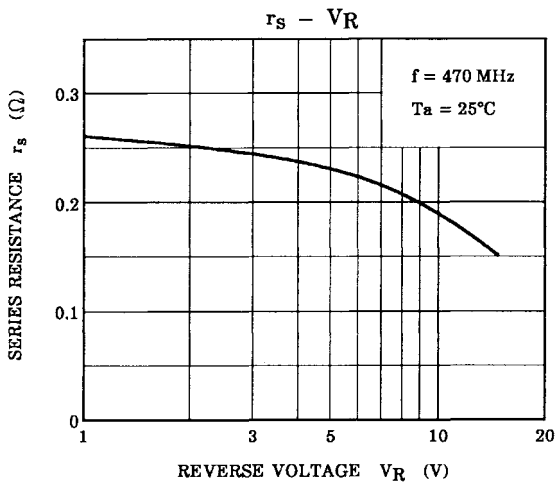
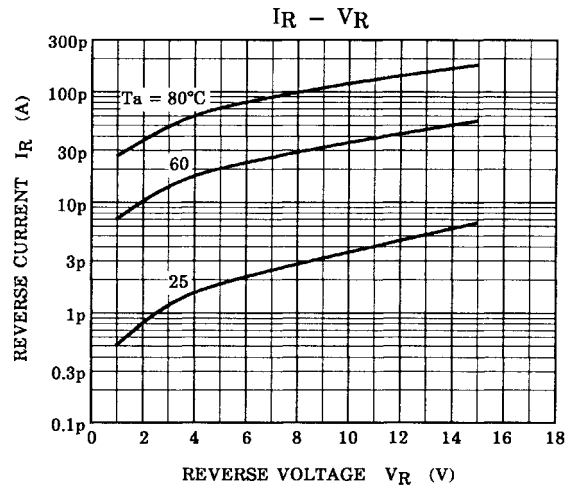
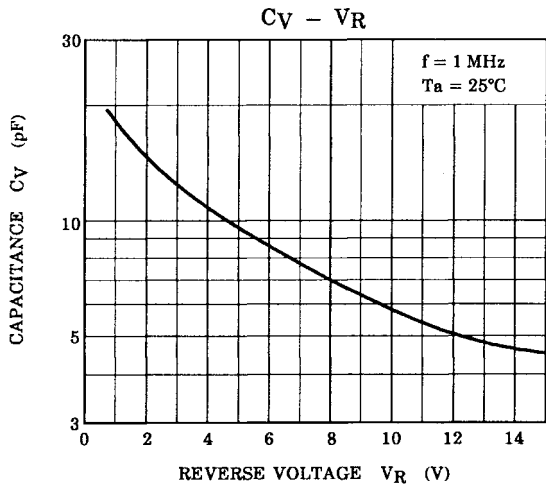
**Electrical Characteristics (Ta = 25°C)**

Weight: 0.006 g (typ.)

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	15	16	pF
Capacitance	$C_{10V}$	$V_R = 10 V, f = 1 MHz$	5.5	6	6.5	pF
Capacitance ratio	$C_{2V}/C_{10V}$	—	2	2.5	—	—
Series resistance	$r_s$	$V_R = 5 V, f = 470 MHz$	—	0.2	0.4	$\Omega$

**Marking**





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

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000707EAA

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