

TOSHIBA Variable Capacitance Diode Silicon Epitaxial Planar Type

1SV285

VCO for UHF Band Radio

Unit: mm

- High capacitance ratio: $C_1 \text{ V}/C_4 \text{ V} = 2.3$ (typ.)
- Low series resistance: $r_s = 0.42 \Omega$ (typ.)
- Useful for small size tuner.

Maximum Ratings ($T_a = 25^\circ\text{C}$)

Characteristics	Symbol	Rating	Unit
Reverse voltage	V_R	10	V
Junction temperature	T_j	125	$^\circ\text{C}$
Storage temperature range	T_{stg}	-55~125	$^\circ\text{C}$

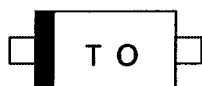
JEDEC	—
JEITA	—
TOSHIBA	1-1G1A

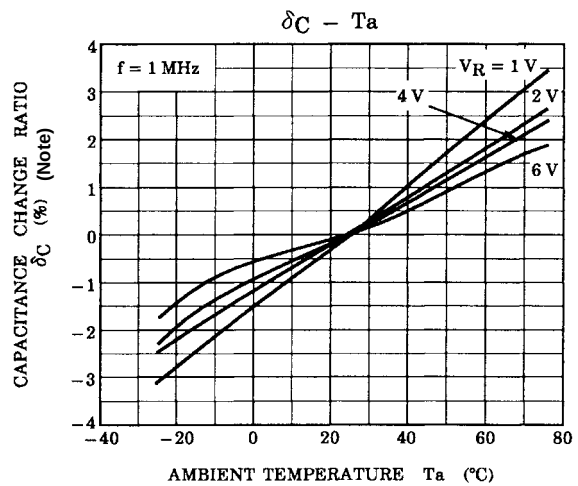
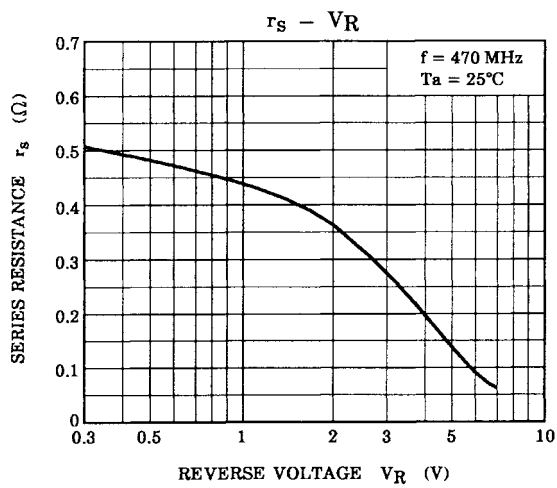
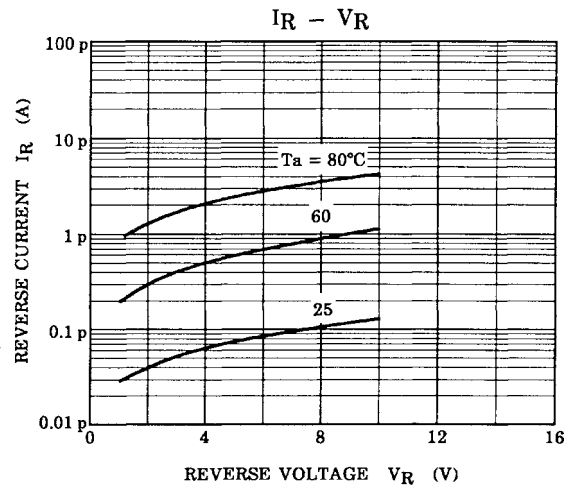
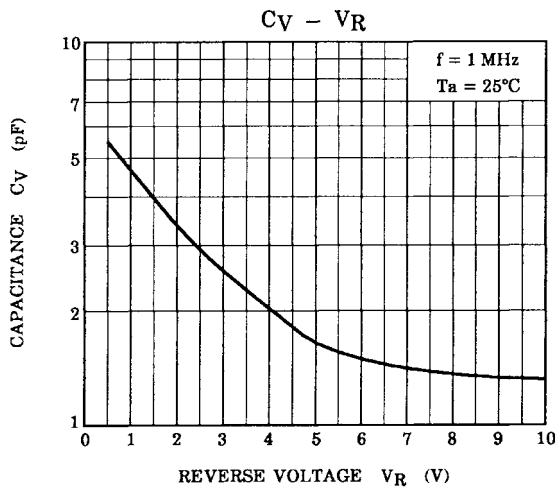
Weight: 0.0014 g (typ.)

Electrical Characteristics ($T_a = 25^\circ\text{C}$)

Characteristics	Symbol	Test Condition	Min	Typ.	Max	Unit
Reverse voltage	V_R	$I_R = 1 \mu\text{A}$	10	—	—	V
Reverse current	I_R	$V_R = 10 \text{ V}$	—	—	3	nA
Capacitance	$C_1 \text{ V}$	$V_R = 1 \text{ V}, f = 1 \text{ MHz}$	4.0	—	4.9	pF
Capacitance	$C_4 \text{ V}$	$V_R = 4 \text{ V}, f = 1 \text{ MHz}$	1.85	—	2.35	pF
Capacitance ratio	$C_1 \text{ V}/C_4 \text{ V}$	—	2.0	2.3	—	—
Series resistance	r_s	$V_R = 1 \text{ V}, f = 470 \text{ MHz}$	—	0.42	0.55	Ω

Marking





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

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