

TOSHIBA Variable Capacitance Diode Silicon Epitaxial Planar Type

1SV281

VCO for V/UHF Band Radio

Unit: mm

- High capacitance ratio: $C_1/V/C_4/V = 2.0$ (typ.)
- Low series resistance: $r_s = 0.28\ \Omega$ (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

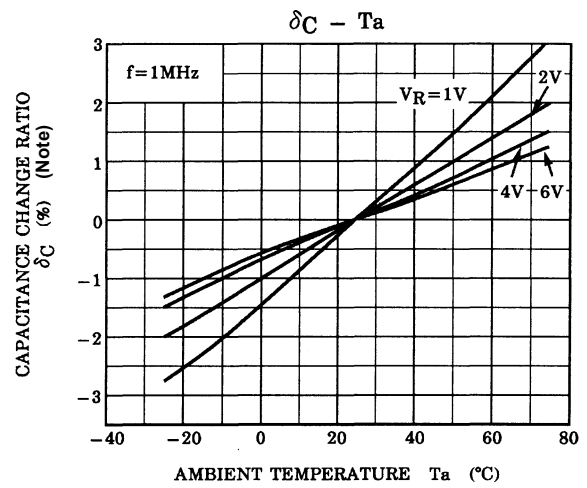
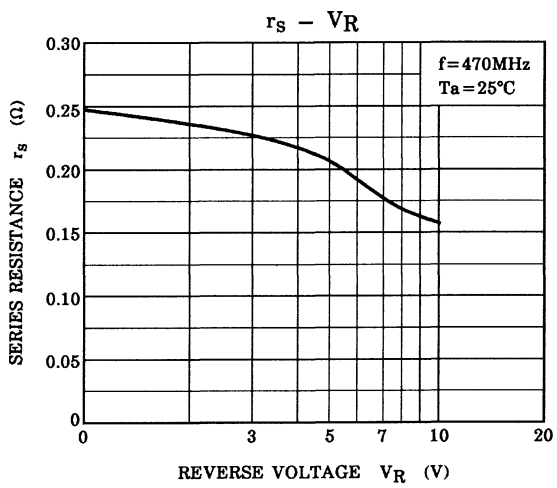
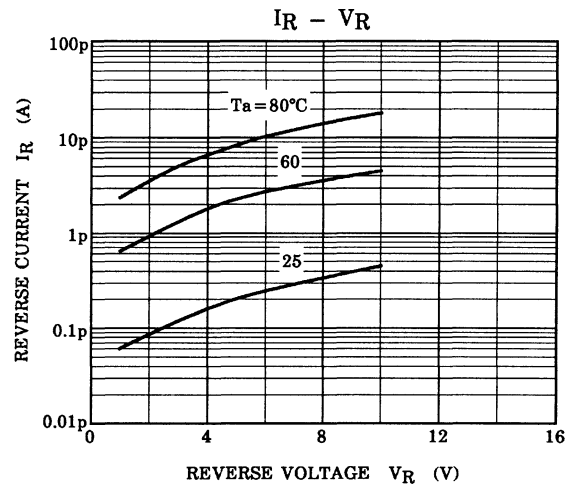
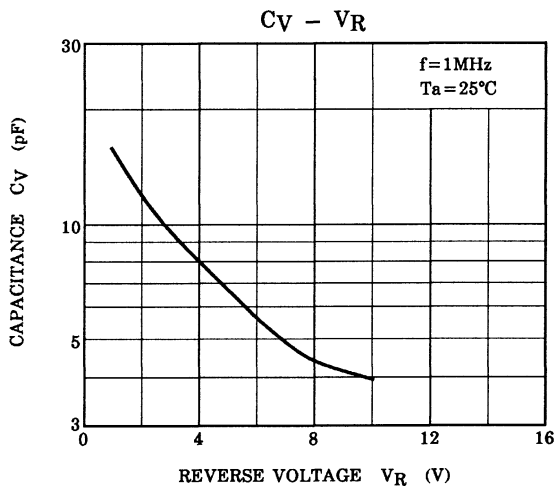
Weight: 0.0014 g (typ.)

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/V	$V_R = 1\ \text{V}, f = 1\ \text{MHz}$	15	—	17	pF
Capacitance	C_4/V	$V_R = 4\ \text{V}, f = 1\ \text{MHz}$	7.3	—	8.7	pF
Capacitance ratio	$C_1/V/C_4/V$	—	1.8	2.0	—	—
Series resistance	r_s	$V_R = 1\ \text{V}, f = 470\ \text{MHz}$	—	0.28	0.5	Ω

Marking





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

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