

TOSHIBA Variable Capacitance Diode Silicon Epitaxial Planar Type

1SV280

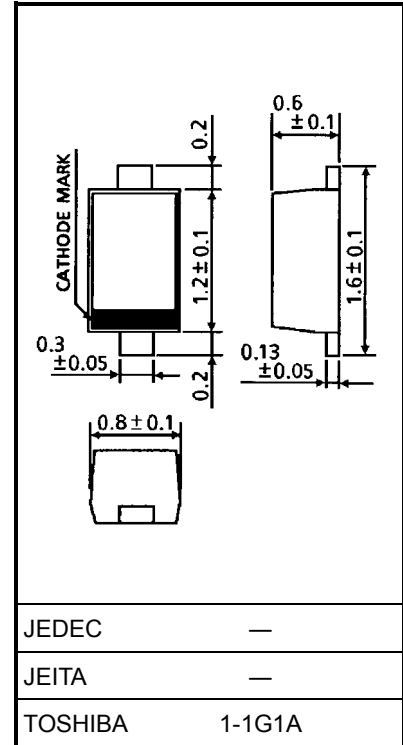
VCO for UHF Band Radio

- High capacitance ratio: $C_{2V}/C_{10V} = 2.4$ (typ.)
- Low series resistance: $r_s = 0.44 \Omega$ (typ.)
- Useful for small size tuner.

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



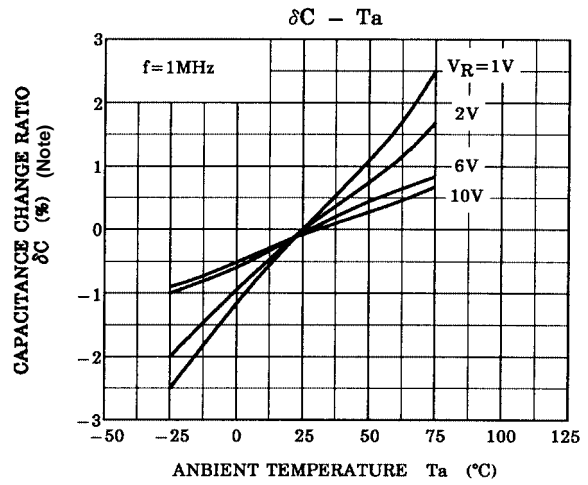
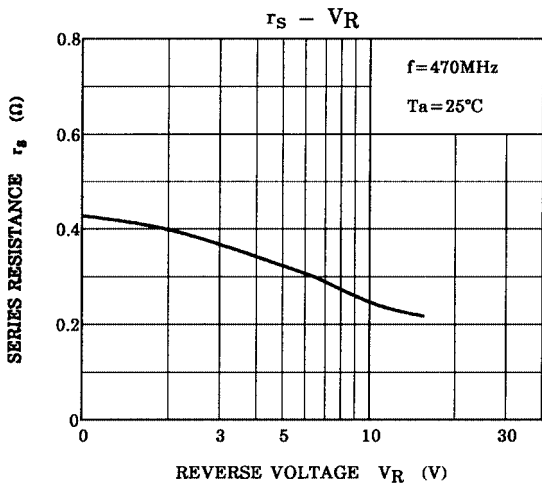
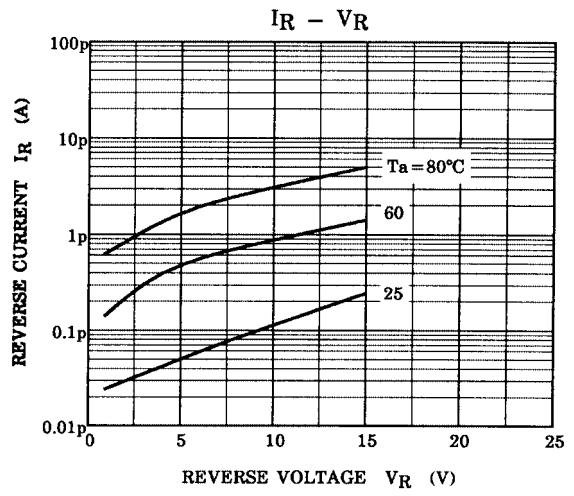
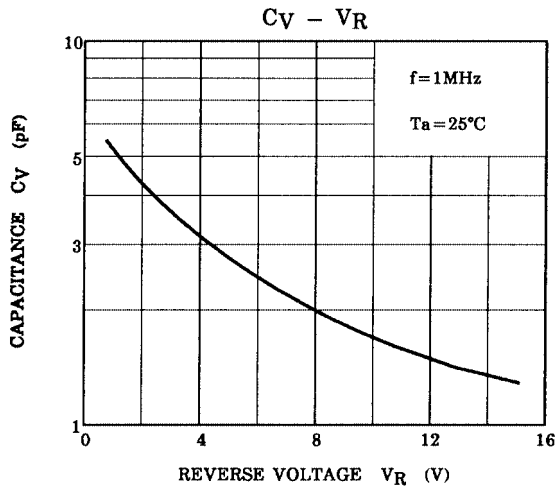
Weight: 0.0014 g (typ.)

Electrical Characteristics (Ta = 25°C)

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}	$V_R = 2 V, f = 1 MHz$	3.8	—	4.7	pF
Capacitance	C_{10V}	$V_R = 10 V, f = 1 MHz$	1.5	—	2.0	pF
Capacitance ratio	C_{2V}/C_{10V}	—	2.0	2.4	—	—
Series resistance	r_s	$V_R = 1 V, f = 470 MHz$	—	0.44	0.6	Ω

Marking





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

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