TOSHIBA Variable Capacitance Diode Silicon Epitaxial Planar Type

1SV280

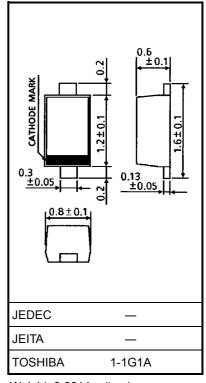
VCO for UHF Band Radio

Unit: mm

- High capacitance ratio: $C_2 \text{ V/C}_{10} \text{ V} = 2.4 \text{ (typ.)}$
- 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	Tj	125	°C
Storage temperature range	T _{stg}	−55~125	°C



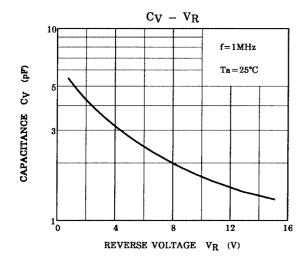
Weight: 0.0014 g (typ.)

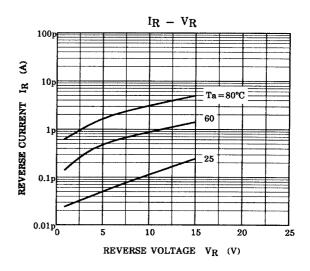
Electrical Characteristics (Ta = 25°C)

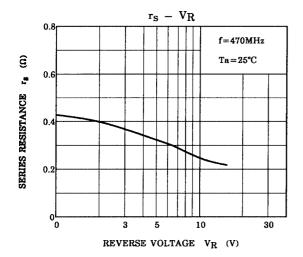
Characteristics	Symbol	Test Condition	Min	Тур.	Max	Unit
Reverse voltage	V_{R}	$I_R = 1 \mu A$	15	_	_	V
Reverse current	I _R	V _R = 15 V	_	_	3	nA
Capacitance	C _{2 V}	$V_R = 2 V$, $f = 1 MHz$	3.8	_	4.7	pF
Capacitance	C _{10 V}	V _R = 10 V, f = 1 MHz	1.5	_	2.0	pF
Capacitance ratio	C _{2 V} /C _{10 V}	_	2.0	2.4	_	_
Series resistance	r _s	V _R = 1 V, f = 470 MHz	_	0.44	0.6	Ω

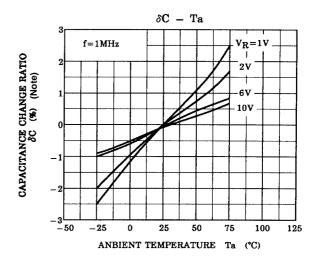
Marking











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

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