TOSHIBA Variable Capacitance Diode Silicon Epitaxial Planar Type

1SV279

VCO for V/UHF Band Radio

Unit: mm

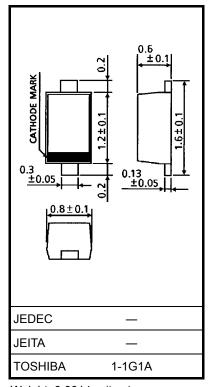
- High capacitance ratio: $C_2 \text{ V/C}_{10} \text{ V} = 2.5 \text{ (typ.)}$
- Low series resistance: $r_s = 0.2 \Omega$ (typ.)
- Useful for small size tuner.

Absolute 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

Note: Using continuously under heavy loads (e.g. the application of high temperature/current/voltage and the significant change in temperature, etc.) may cause this product to decrease in the reliability significantly even if the operating conditions (i.e. operating temperature/current/voltage, etc.) are within the absolute maximum ratings.

Please design the appropriate reliability upon reviewing the Toshiba Semiconductor Reliability Handbook ("Handling Precautions"/"Derating Concept and Methods") and individual reliability data (i.e. reliability test report and estimated failure rate, etc).



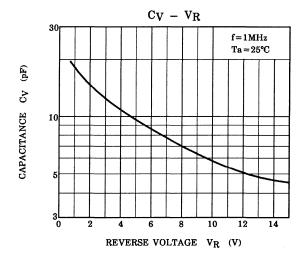
Weight: 0.0014 g (typ.)

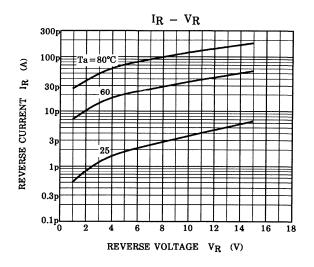
Electrical Characteristics (Ta = 25°C)

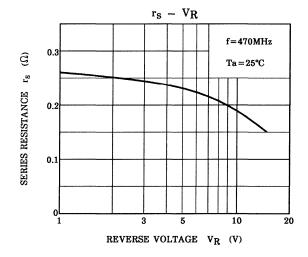
Characteristics	Symbol	Test Condition	Min	Тур.	Max	Unit
Reverse voltage	V_{R}	Ι _R = 1 μΑ	15	_	_	V
Reverse current	I _R	V _R = 15 V	_	_	3	nA
Capacitance	C _{2 V}	V _R = 2 V, f = 1 MHz	14	_	16	pF
Capacitance	C _{10 V}	V _R = 10 V, f = 1 MHz	5.5	_	6.5	pF
Capacitance ratio	C _{2 V} /C _{10 V}	_	2.0	2.5	_	_
Series resistance	r _s	V _R = 5 V, f = 470 MHz	_	0.2	0.4	Ω

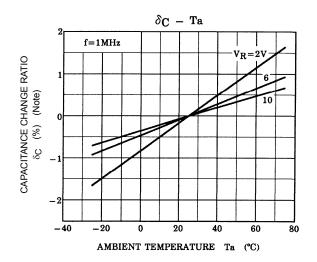
Marking











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

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