TOSHIBA Variable Capacitance Diode Silicon Epitaxial Planar Type

1SV239

VCO for UHF Radio

Unit: mm

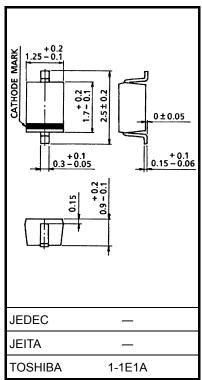
- Ultra low series resistance: $r_s = 0.44 \Omega$ (typ.)
- Useful for small size set

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 to 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).

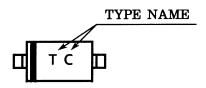


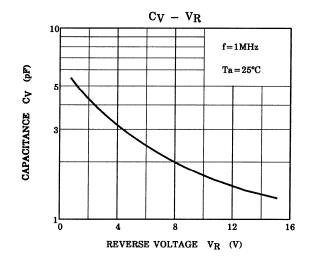
Weight: 0.004 g (typ.)

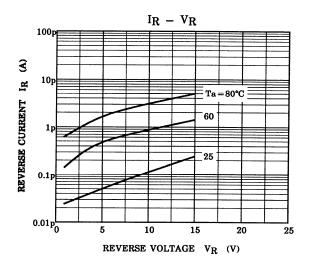
Electrical Characteristics (Ta = 25°C)

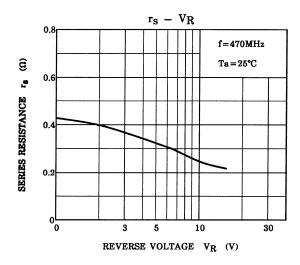
Characteristics	Symbol	Test Condition	Min	Тур.	Max	Unit
Reverse voltage	V_{R}	Ι _R = 1 μΑ	15	_	_	V
Reverse current	I _R	V _R = 15 V	_	_	3	nA
Capacitance	C _{2V}	V _R = 2 V, f = 1 MHz	3.8	4.25	4.7	pF
Capacitance	C _{10V}	V _R = 10 V, f = 1 MHz	1.5	1.75	2.0	pF
Capacitance ratio	C _{2V} / C _{10V}	_	2.0	2.4	_	_
Series resistance	r _S	V _R = 1 V, f = 470 MHz	_	0.44	0.6	Ω

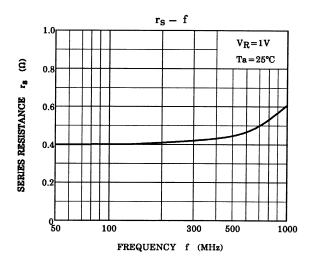
Marking

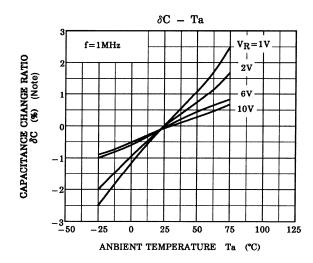












Note:
$$\delta_C = \frac{C \text{ (Ta)} - C \text{ (25)}}{C \text{ (25)}} \times 100 \text{ (\%)}$$

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