TOSHIBA Variable Capacitance Diode Silicon Epitaxial Planar Type

1SV293

VCO for UHF Band Radio

Unit: mm

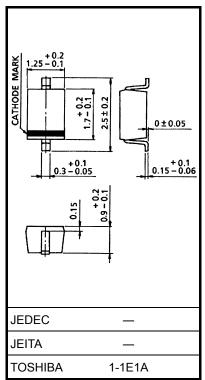
- Ultra low series resistance: $r_8 = 0.26 \Omega$ (typ.)
- Useful for small size set

Absolute Maximum Ratings (Ta = 25°C)

Characteristics	Symbol	Rating	Unit
Reverse voltage	V_{R}	10	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: 0.004 g (typ.)

Electrical Characteristics (Ta = 25°C)

Characteristics	Symbol	Test Condition	Min	Тур.	Max	Unit
Reverse voltage	V_{R}	$I_R = 1 \mu A$	10	_	_	V
Reverse current	I _R	V _R = 10 V	_	_	3	nA
Capacitance	C _{1 V}	V _R = 1 V, f = 1 MHz	18.0	_	20.0	pF
Capacitance	C _{4 V}	V _R = 4 V, f = 1 MHz	10.1	_	11.6	pF
Capacitance ratio	C _{1 V} /C _{4 V}	_	1.55	_	_	_
Series resistance	r _S	V _R = 1 V, f = 470 MHz		0.26	0.4	Ω

Marking



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20070701-EN GENERAL

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