TOSHIBA Variable Capacitance Diode Silicon Epitaxial Planar Type

1SV331

Useful for VCO/TCXO

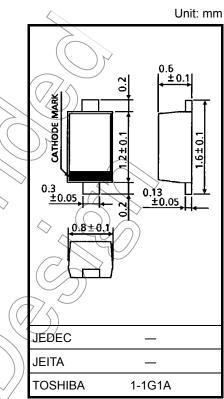
- Small Package
- High Capacitance Ratio $: C_{1V}/C_{4V} = 3.75$ (typ.)
- Low Series Resistance $: r_s = 0.45 \Omega$ (typ.)

Absolute Maximum Ratings (Ta = 25°C)

Characteristics	Symbol	Rating	Uñit
Reverse voltage	VR	10	
Junction temperature	Tj	125	(C)
Storage temperature range	T _{stg}	-55~125	Ĵ.

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.)

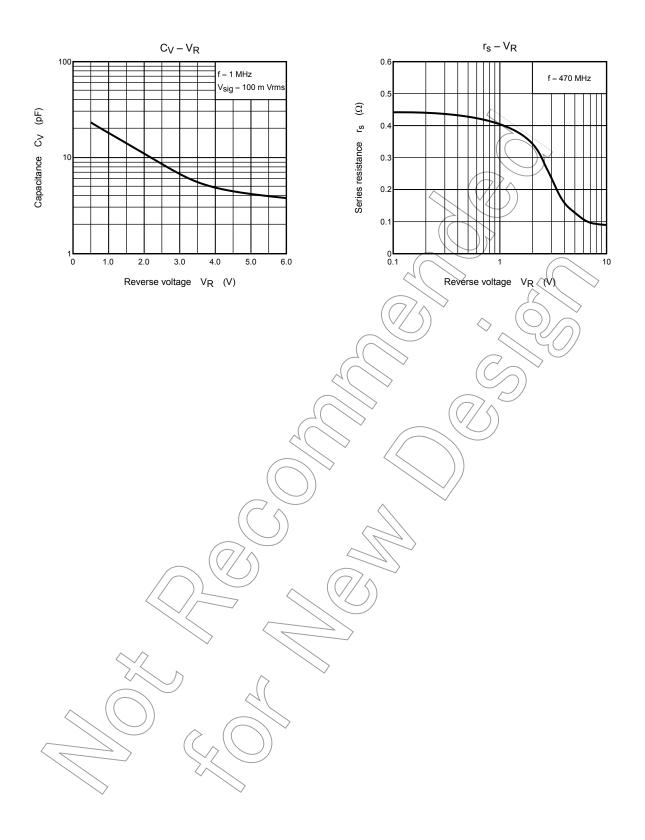
Electrical Characteristics (Ta = 25°C)

Characteristics	Symbol	Test Condition	Min	Тур.	Max	Unit
Reverse voltage	VR	Ι _R = 1 μΑ	10	_	_	V
Reverse current	IR	V _R = 10 V	_	_	3	nA
Capacitance		V _R = 1 V, f = 1 MHz	17	18	19	pF
	C _{4V}	V _R = 4 V, f = 1 MHz	4.25	4.8	5.43	μ
Capacitance ratio	C1V/C4V	—	3.5	3.75	_	_
Series resistance	r _s	V _R = 1 V, f = 470 MHz		0.45	0.7	Ω

Marking



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