TOSHIBA Variable Capacitance Diode Silicon Epitaxial Planar Type

# 1SV331

#### Useful for VCO/TCXO

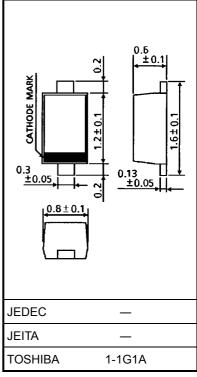
Unit: mm

• Small Package

• High Capacitance Ratio :  $C_{1V}/C_{4V} = 3.75$  (typ.) • Low Series Resistance :  $r_{8} = 0.45 \Omega$  (typ.)

#### **Maximum Ratings (Ta = 25°C)**

Characteristics	Symbol	Rating	Unit
Reverse voltage	$V_{R}$	10	V
Junction temperature	Tj	125	°C
Storage temperature range	T <sub>stg</sub>	-55~125	°C

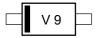


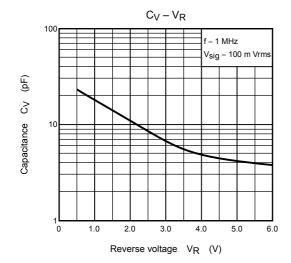
Weight: 0.0014 g (typ.)

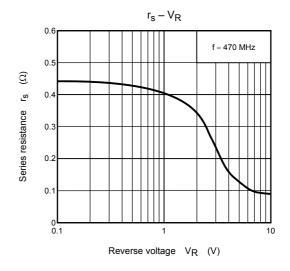
## **Electrical Characteristics (Ta = 25°C)**

Characteristics	Symbol	Test Condition	Min	Тур.	Max	Unit
Reverse voltage	$V_{R}$	I <sub>R</sub> = 1 μA	10	_	_	V
Reverse current	I <sub>R</sub>	V <sub>R</sub> = 10 V	_	_	3	nA
Capacitance -	C <sub>1V</sub>	V <sub>R</sub> = 1 V, f = 1 MHz	17	18	19	pF
	C <sub>4V</sub>	V <sub>R</sub> = 4 V, f = 1 MHz	4.25	4.8	5.43	
Capacitance ratio	C <sub>1V</sub> /C <sub>4V</sub>	_	3.5	3.75	_	_
Series resistance	r <sub>s</sub>	V <sub>R</sub> = 1 V, f = 470 MHz	_	0.45	0.7	Ω

## Marking







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