

TOSHIBA Diode Silicon Epitaxial Planar Type

# JDV2S14E

Useful for VCO/TCXO

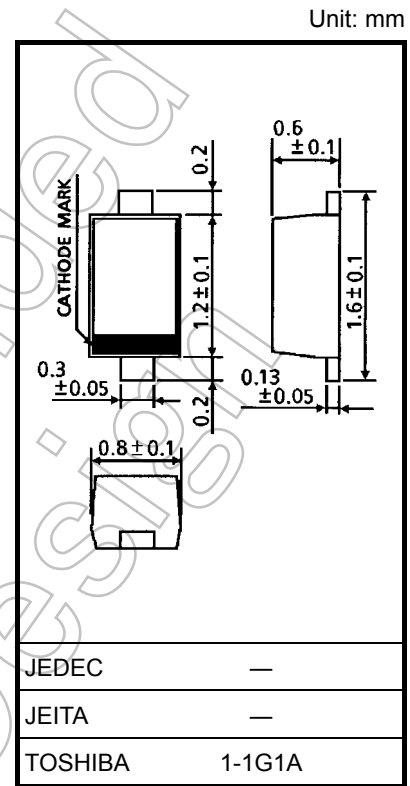
- Small Package
- High Capacitance Ratio:  $C_{1V} / C_{2.5V} = 2.15$  (typ.)
- Low Series Resistance :  $r_s = 0.4 \Omega$  (typ.)

## Absolute Maximum Ratings (Ta = 25°C)

Characteristics	Symbol	Rating	Unit
Reverse voltage	$V_R$	10	V
Junction temperature	$T_j$	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: 0.0014 g (typ.)

## Electrical Characteristics (Ta = 25°C)

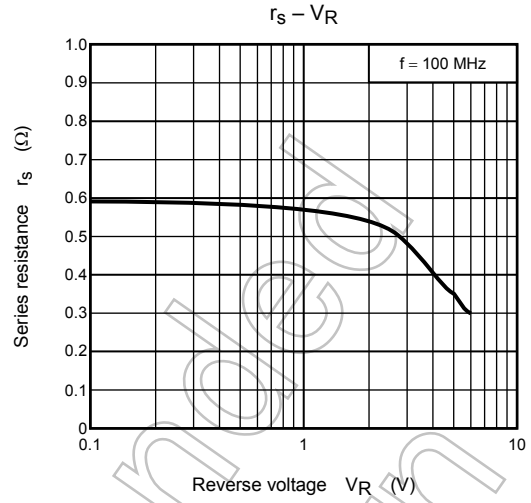
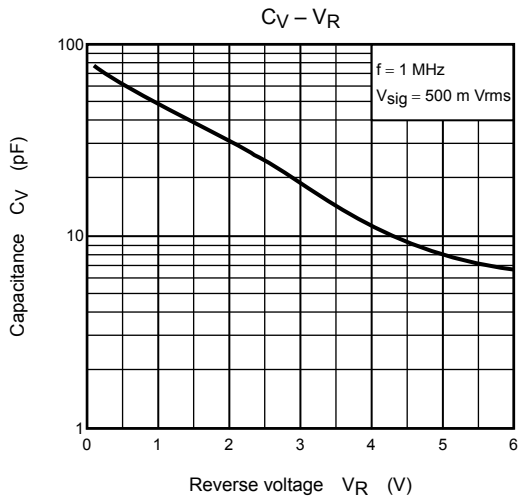
Characteristics	Symbol	Test Condition	Min	Typ.	Max	Unit
Reverse voltage	$V_R$	$I_R = 1 \mu A$	10	—	—	V
Reverse current	$I_R$	$V_R = 10 V$	—	—	3	nA
Capacitance	$C_{0.5V}$	$V_R = 0.5 V, f = 1 MHz$	56.3	—	64.7	pF
	$C_{1V}$	$V_R = 1 V, f = 1 MHz$	44	—	49.5	
	$C_{2.5V}$	$V_R = 2.5 V, f = 1 MHz$	19	—	26.5	
	$C_{4V}$	$V_R = 4 V, f = 1 MHz$	9.2	—	12	
Capacitance ratio	$C_{0.5V} / C_{1V}$	—	1.25	—	1.35	—
	$C_{1V} / C_{2.5V}$	—	1.99	2.15	2.3	
Series resistance	$r_s$	$V_R = 4 V, f = 100 MHz$	—	0.4	0.8	$\Omega$

Note: Signal level when capacitance is measured.  $V_{sig} = 500 mV_{rms}$

## Marking



Start of commercial production  
2000-04



Not Recommended for New Design

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