

TOSHIBA Diode Silicon Epitaxial Planar Type

JDV2S05E

VCO for UHF band

- Small Package
- High Capacitance Ratio: $C_{1V}/C_{4V} = 1.9$ (typ.)
- Low Series Resistance : $r_s = 0.30 \Omega$ (typ.)

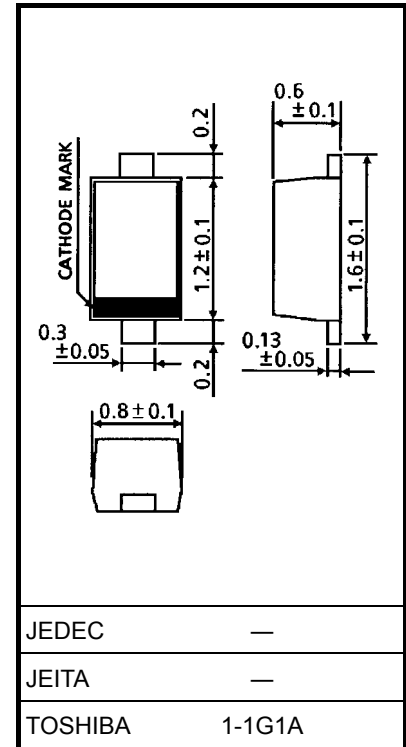
Absolute Maximum Ratings (Ta = 25°C)

Characteristics	Symbol	Rating	Unit
Reverse voltage	V_R	10	V
Junction temperature	T_j	125	°C
Storage temperature range	T_{stg}	-55~125	°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).

Unit: mm



Weight: 0.0014 g (typ.)

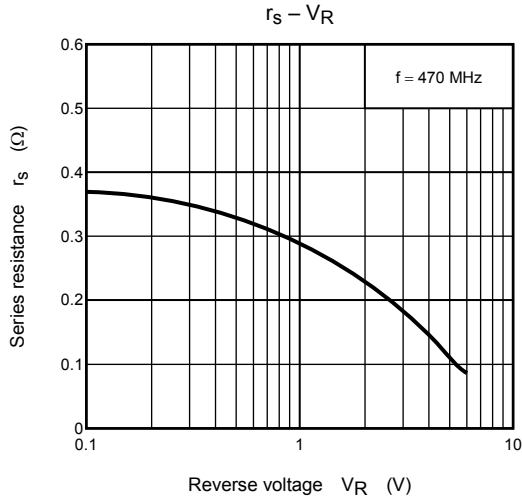
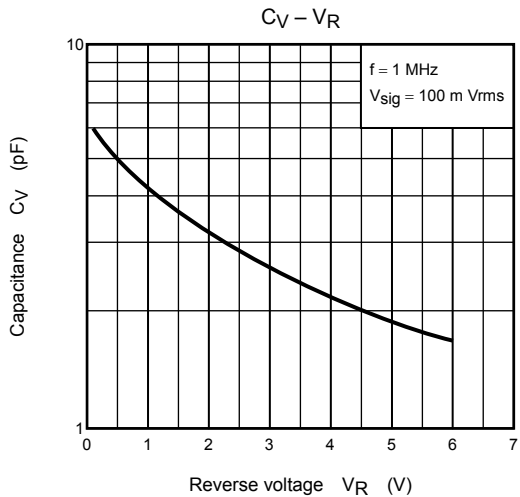
Electrical Characteristics (Ta = 25°C)

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_{1V}	$V_R = 1 V, f = 1 MHz$	3.85	4.2	4.55	pF
	C_{4V}	$V_R = 4 V, f = 1 MHz$	1.94	2.2	2.48	
Capacitance ratio	C_{1V}/C_{4V}	—	1.7	1.9	—	—
Series resistance	r_s	$V_R = 1 V, f = 470 MHz$	—	0.3	0.5	Ω

Note: Signal level when capacitance is measured. $V_{sig} = 100 mV_{rms}$

Marking





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