

TOSHIBA Diode Silicon Epitaxial Planar Type

# JDV2S05E

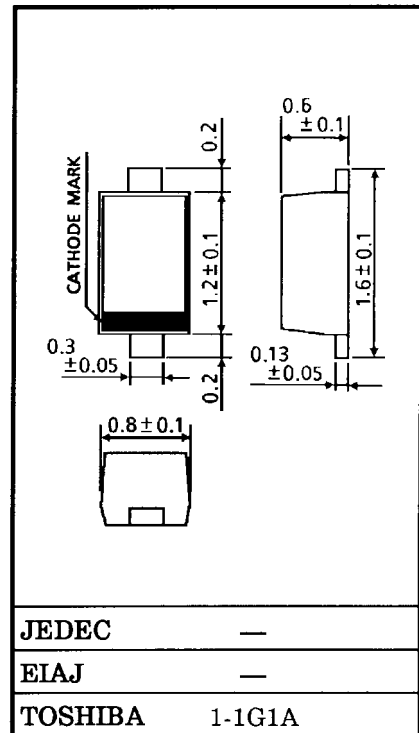
VCO for UHF band

Unit in mm

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

### 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



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## Electrical Characteristics (Ta = 25°C)

Characteristics	Symbol	Test Condition	Min	Typ.	Max	Unit
Reverse voltage	$V_R$	$I_R = 1 \mu\text{A}$	10	—	—	V
Reverse current	$I_R$	$V_R = 10 \text{ V}$	—	—	3	nA
Capacitance	$C_{1V}$	$V_R = 1 \text{ V}, f = 1 \text{ MHz}$	3.85	4.2	4.55	pF
	$C_{4V}$	$V_R = 4 \text{ V}, f = 1 \text{ MHz}$	1.94	2.2	2.48	
Capacitance ratio	$C_{1V}/C_{4V}$	—	1.7	1.9	—	—
Series resistance	$r_s$	$V_R = 1 \text{ V}, f = 470 \text{ MHz}$	—	0.3	0.5	$\Omega$

Note: Signal level when capacitance is measured.  $V_{\text{sig}} = 100 \text{ mV}_{\text{rms}}$

## Marking



