

TOSHIBA Diode Silicon Epitaxial Planar Type

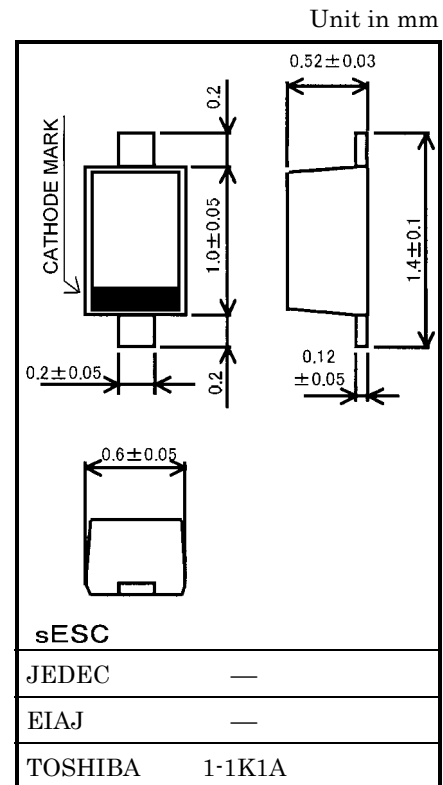
# JDV2S05S

VCO for UHF band

- High capacitance ratio:  $C_{1V}/C_{4V} = 1.9$  (typ.)
- Low series resistance:  $r_s = 0.3 \Omega$  (typ.)
- This device is suitable for use in a small-size tuner.

## Maximum Ratings (Ta = 25°C)

Characteristics	Symbol	Rating	Unit
Reverse voltage	$V_R$	10	V
Junction temperature	$T_j$	150	°C
Storage temperature range	$T_{stg}$	-55~150	°C

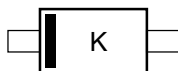


## Electrical Characteristics (Ta = 25°C)

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	$\Omega$

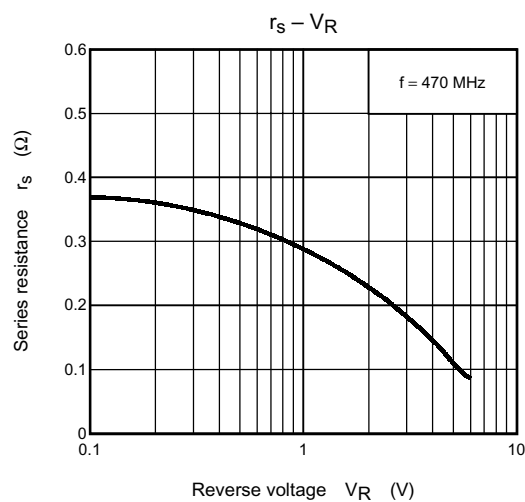
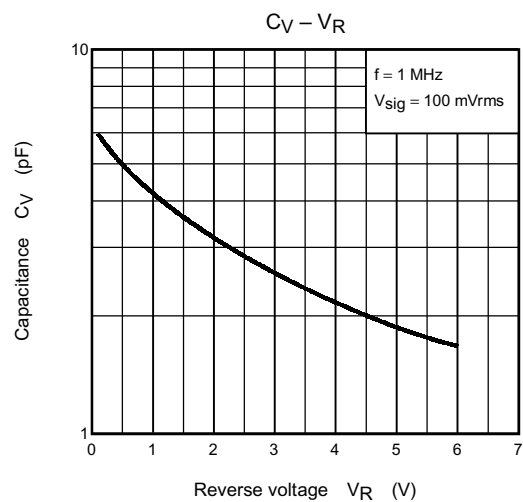
Note: Signal level when capacitance is measured.  $V_{sig} = 100 mV_{rms}$

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