

TOSHIBA VARIABLE CAPACITANCE DIODE SILICON EPITAXIAL PLANAR TYPE

# 1SV305

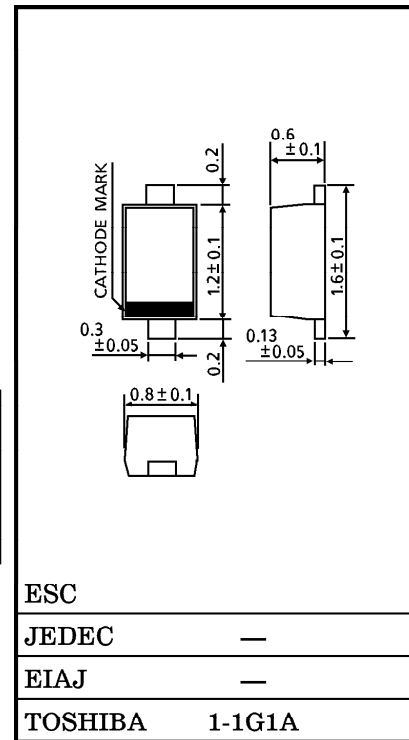
VCO FOR VHF BAND RADIO

Unit in mm

- Small Package
- High Capacitance Ratio :  $C_{1V} / C_{4V} = 3.0$  (Typ.)
- Low Series Resistance :  $r_s = 0.27\Omega$  (Typ.)

MAXIMUM RATINGS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	RATIN	UNIT
Reverse Voltage	$V_R$	10	V
Junction Temperature	$T_j$	125	°C
Storage Temperature Range	$T_{stg}$	-55~125	°C



ELECTRICAL CHARACTERISTICS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Reverse Voltage	$V_R$	$I_R = 1\mu A$	10	—	—	V
Reverse Current	$I_R$	$V_R = 10V$	—	—	3	nA
Capacitance	$C_{1V}$	$V_R = 1V, f = 1MHz$	17.3	18.3	19.3	pF
Capacitance	$C_{4V}$	$V_R = 4V, f = 1MHz$	5.3	6.1	6.6	pF
Capacitance Ratio	$C_{1V} / C_{4V}$	—	2.8	3	—	—
Series Resistance	$r_s$	$V_R = 1V, f = 470MHz$	—	0.27	0.32	$\Omega$

MARKING



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