

TOSHIBA VARIABLE CAPACITANCE DIODE SILICON EPITAXIAL PLANAR TYPE

1SV305

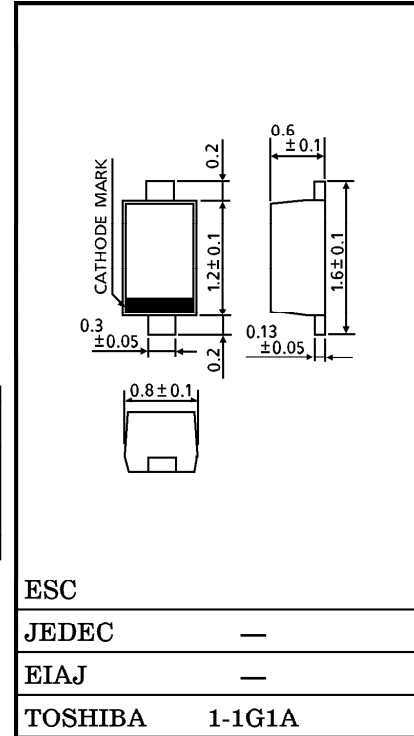
VCO FOR VHF BAND RADIO

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 ($T_a = 25^\circ\text{C}$)

CHARACTERISTIC	SYMBOL	RATIN	UNIT
Reverse Voltage	V_R	10	V
Junction Temperature	T_j	125	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	$-55\sim 125$	$^\circ\text{C}$



ELECTRICAL CHARACTERISTICS ($T_a = 25^\circ\text{C}$)

CHARACTERISTIC	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}	$V_R=1\text{V}, f=1\text{MHz}$	17.3	18.3	19.3	pF
Capacitance	C_{4V}	$V_R=4\text{V}, f=1\text{MHz}$	5.3	6.1	6.6	pF
Capacitance Ratio	C_{1V}/C_{4V}	—	2.8	3	—	—
Series Resistance	r_s	$V_R=1\text{V}, f=470\text{MHz}$	—	0.27	0.32	Ω

MARKING



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