

TOSHIBA VARIABLE CAPACITANCE DIODE SILICON EPITAXIAL PLANAR TYPE

# 1SV280

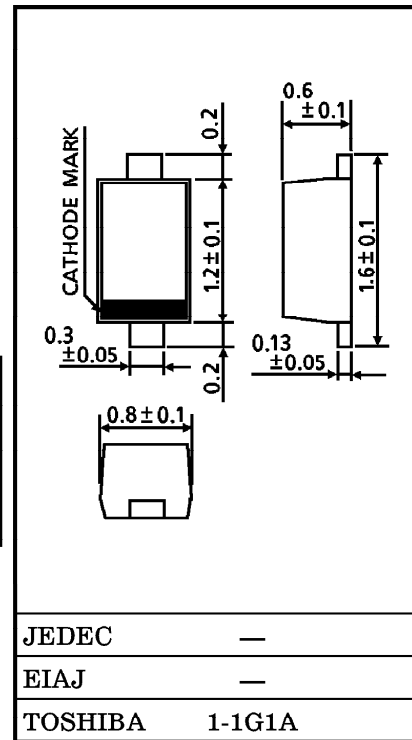
VCO FOR UHF BAND RADIO

Unit in mm

- High Capacitance Ratio :  $C_{2V} / C_{10V} = 2.4$  (TYP.)
- Low Series Resistance :  $r_s = 0.44 \Omega$  (TYP.)
- Useful for Small Size Tuner.

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

CHARACTERISTIC	SYMBOL	RATING	UNIT
Reverse Voltage	$V_R$	15	V
Junction Temperature	$T_j$	125	$^\circ\text{C}$
Storage Temperature Range	$T_{stg}$	-55~125	$^\circ\text{C}$



Weight : 0.0014g

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

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Reverse Voltage	$V_R$	$I_R = 1 \mu\text{A}$	15	—	—	V
Reverse Current	$I_R$	$V_R = 15\text{V}$	—	—	3	nA
Capacitance	$C_{2V}$	$V_R = 2\text{V}, f = 1\text{MHz}$	3.8	—	4.7	pF
Capacitance	$C_{10V}$	$V_R = 10\text{V}, f = 1\text{MHz}$	1.5	—	2.0	pF
Capacitance Ratio	$C_{2V} / C_{10V}$	—	2.0	2.4	—	—
Series Resistance	$r_s$	$V_R = 1\text{V}, f = 470\text{MHz}$	—	0.44	0.6	$\Omega$

MARKING

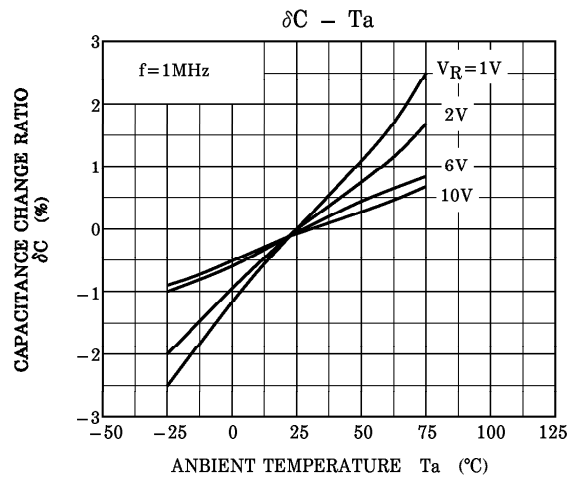
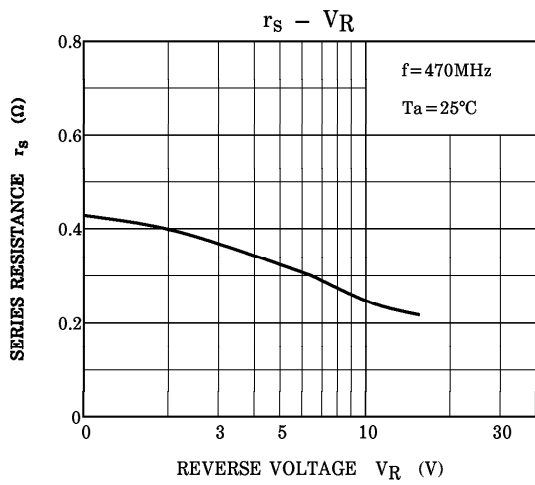
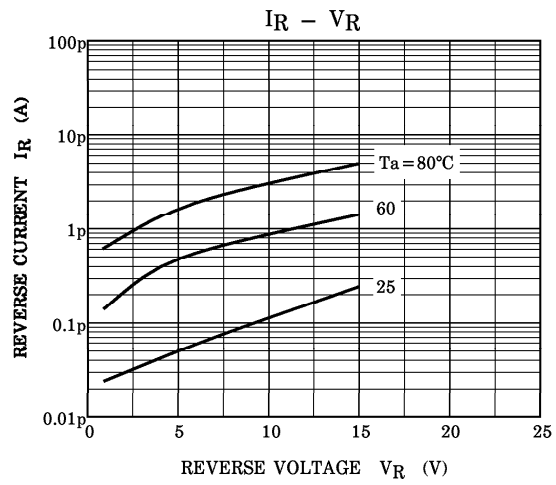
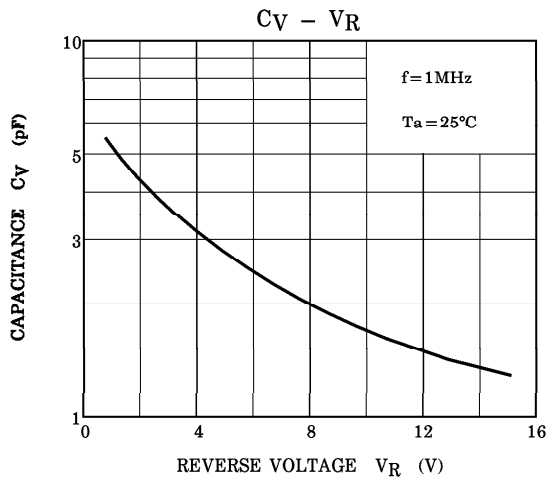


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NOTE :  $\delta C = \frac{C(T_a) - C(25)}{C(25)} \times 100$