

TOSHIBA VARIABLE CAPACITANCE DIODE SILICON EPITAXIAL PLANAR TYPE

1SV280

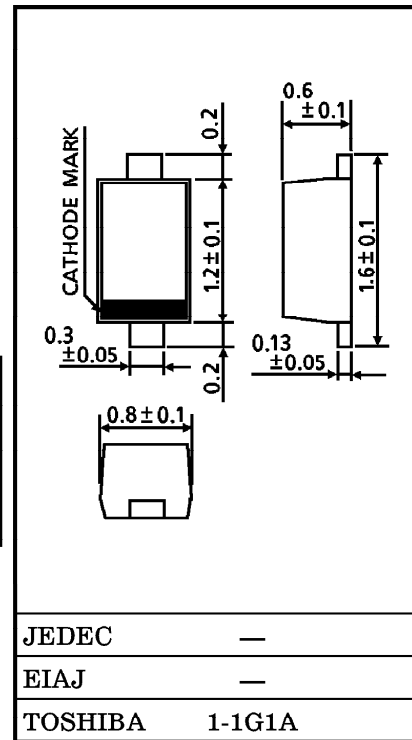
VCO FOR UHF BAND RADIO

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	Ω

MARKING

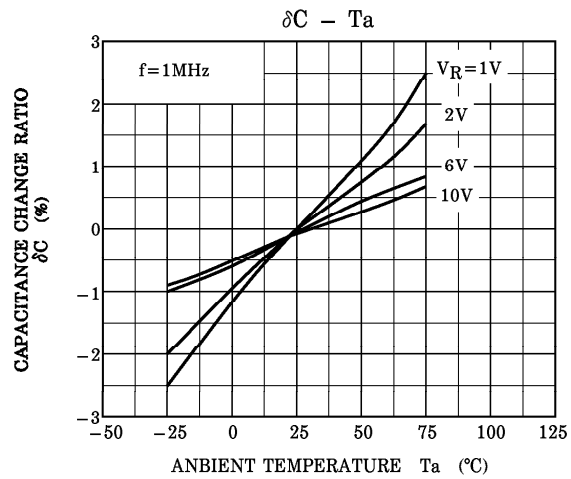
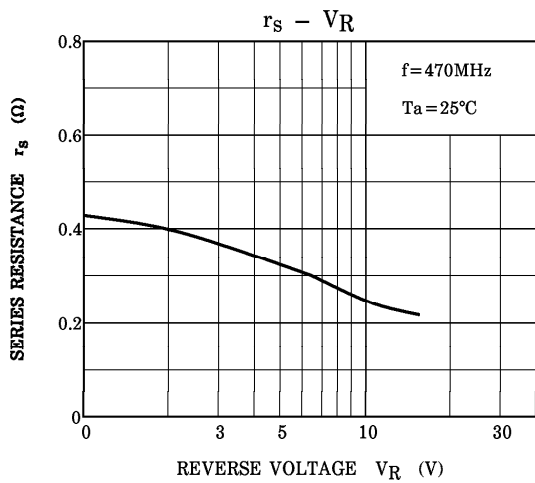
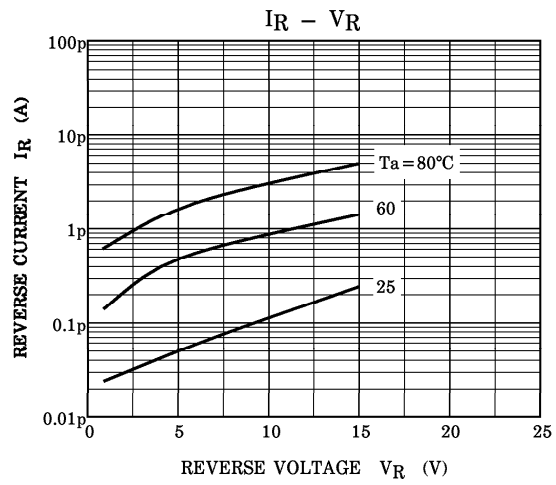
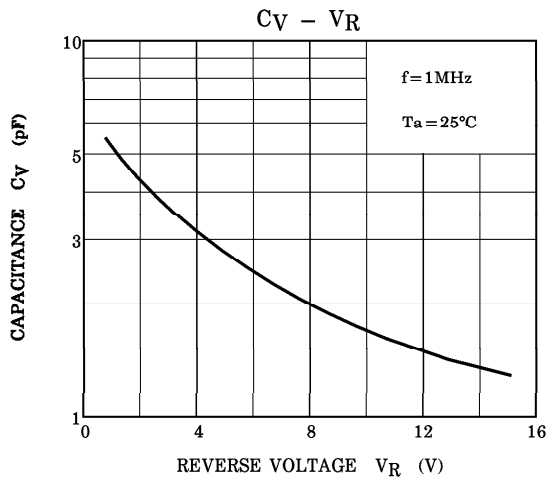


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NOTE : $\delta C = \frac{C(T_a) - C(25)}{C(25)} \times 100$