

**SEMICONDUCTOR**  
**TOSHIBA** TECHNICAL DATA

TOSHIBA VARIABLE CAPACITANCE DIODE  
**1SV273**  
 SILICON EPITAXIAL PLANAR TYPE

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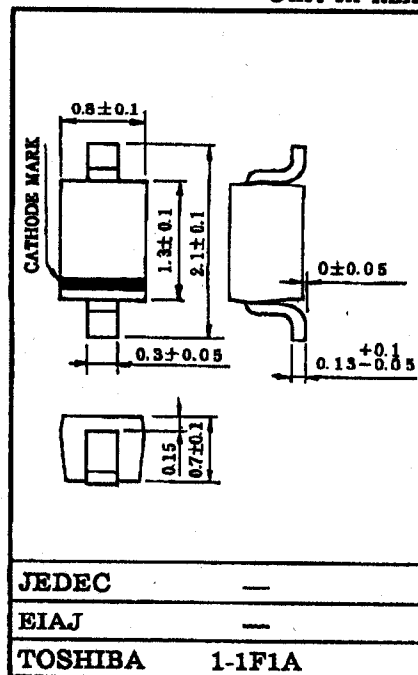
VCO FOR UHF BAND RADIO

- High Capacitance Ratio :  $C_{1V}/C_{4V}=2.0$  (Typ.)
- Low Series Resistance :  $r_s=0.28\Omega$  (Typ.)
- Small Package

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

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

Unit in mm



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	$C_{1V}$	$V_R = 1\text{V}, f = 1\text{MHz}$	15	16	17	pF
Capacitance	$C_{4V}$	$V_R = 4\text{V}, f = 1\text{MHz}$	7.3	8.0	8.7	pF
Capacitance Ratio	$C_{1V}/C_{4V}$	—	1.8	2.0	—	—
Series Resistance	$r_s$	$V_R = 1\text{V}, f = 470\text{MHz}$	—	0.28	0.5	$\Omega$

MARKING



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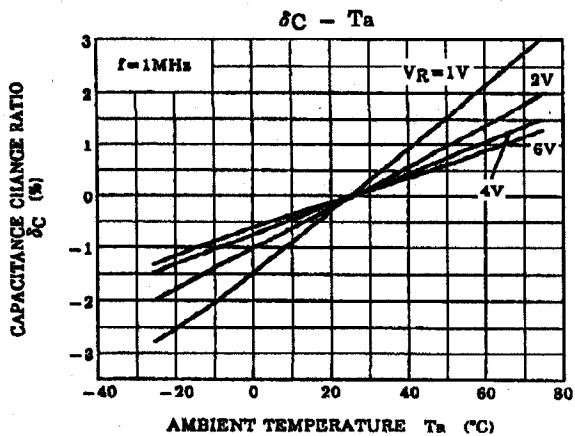
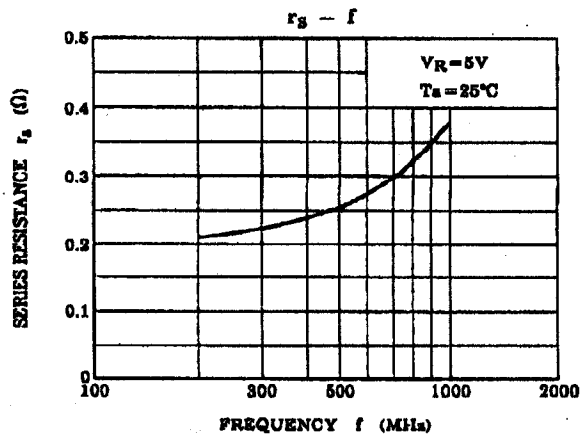
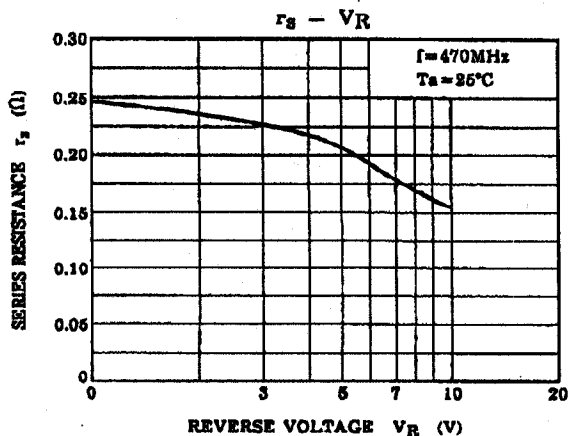
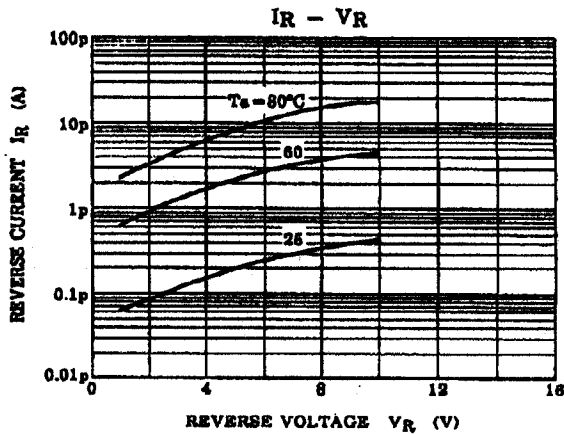
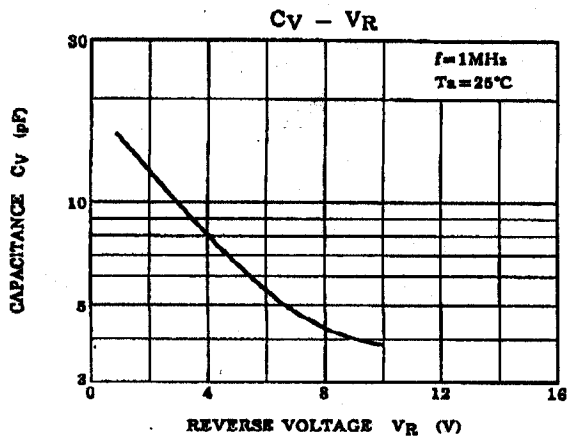
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