

TOSHIBA VARIABLE CAPACITANCE DIODE SILICON EPITAXIAL PLANAR TYPE

# 1SV230

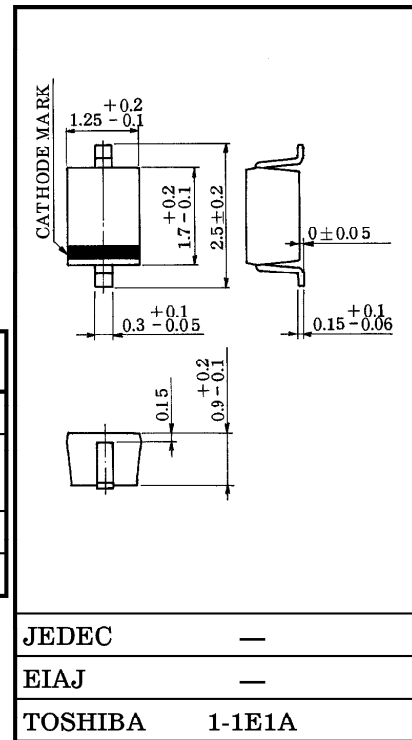
CATV CONVERTER 1st OSC TUNING.

Unit in mm

- High Capacitance Ratio :  $C_{2V} / C_{20V} = 8$  (Typ.)
- Low Series Resistance :  $r_s = 0.73 \Omega$  (Typ.)
- Useful for Small Size Tuner.

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

CHARACTERISTIC	SYMBOL	RATING	UNIT
Reverse Voltage	$V_R$	30	V
Peak Reverse Voltage	$V_{RM}$	35 ( $R_L = 10k\Omega$ )	V
Junction Temperature	$T_j$	125	$^\circ\text{C}$
Storage Temperature Range	$T_{stg}$	-55~125	$^\circ\text{C}$



Weight : 0.004g

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

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Reverse Voltage	$V_R$	$I_R = 1\mu\text{A}$	30	—	—	V
Reverse Current	$I_R$	$V_R = 28\text{V}$	—	—	10	nA
Capacitance	$C_{2V}$	$V_R = 2\text{V}, f = 1\text{MHz}$	13.9	15	16.1	pF
Capacitance	$C_{20V}$	$V_R = 20\text{V}, f = 1\text{MHz}$	1.7	1.9	2.1	pF
Capacitance Ratio	$C_{2V} / C_{20V}$	—	7.1	8	—	—
Series Resistance	$r_s$	$V_R = 5\text{V}, f = 470\text{MHz}$	—	0.73	0.9	$\Omega$

Marking

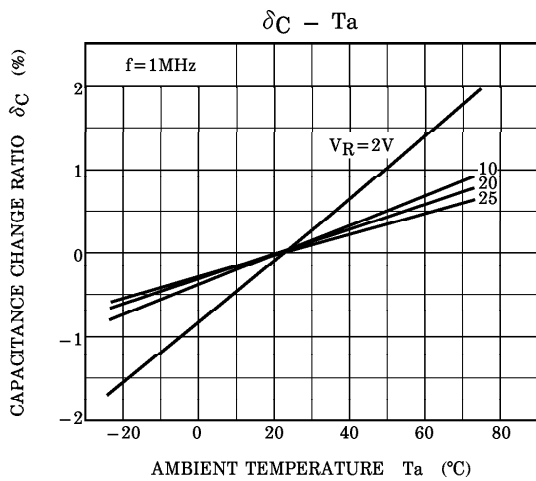
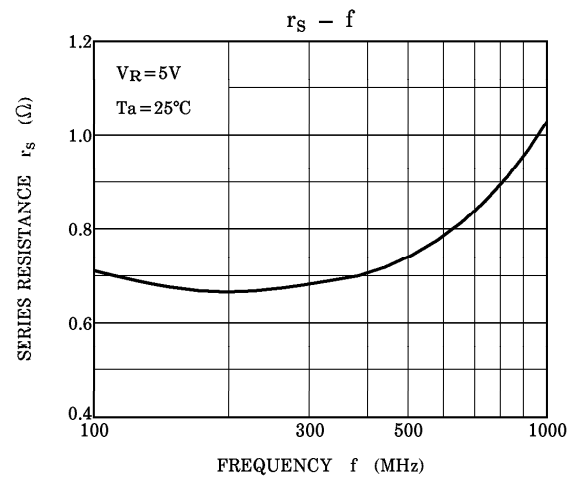
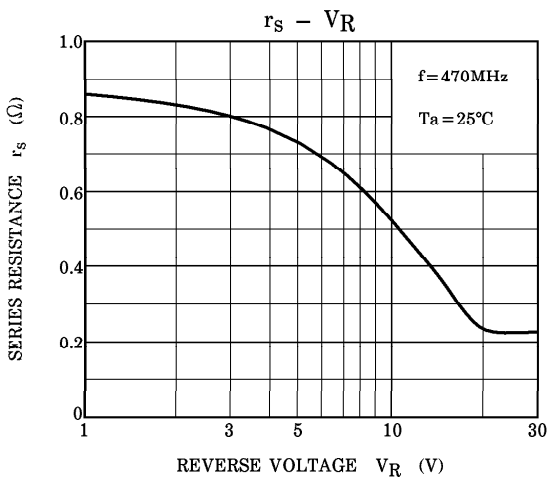
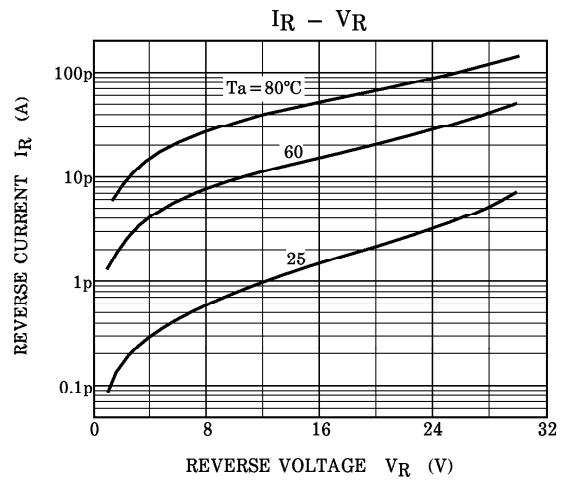
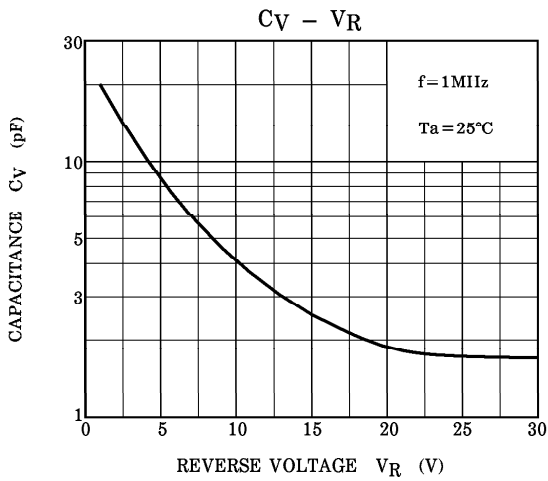


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NOTE :  $\delta C (\%) = \frac{C (Ta) - C (25)}{C (25)} \times 100$