

TOSHIBA VARIABLE CAPACITANCE DIODE SILICON EPITAXIAL PLANAR TYPE

1SV230

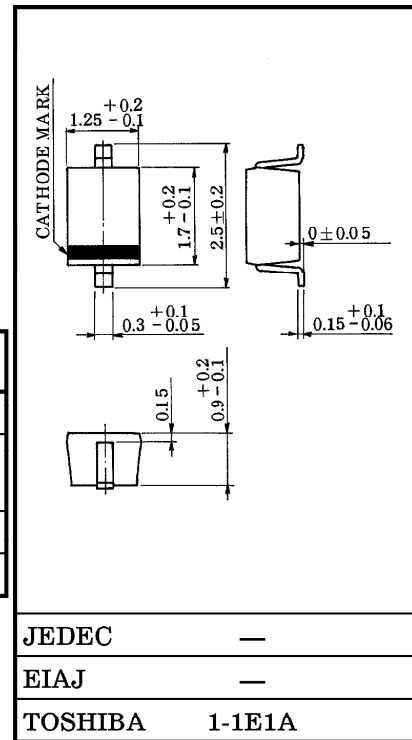
CATV CONVERTER 1st OSC TUNING.

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	Ω

Marking

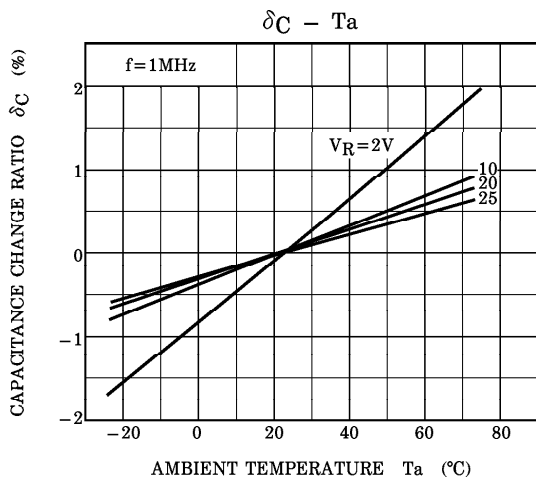
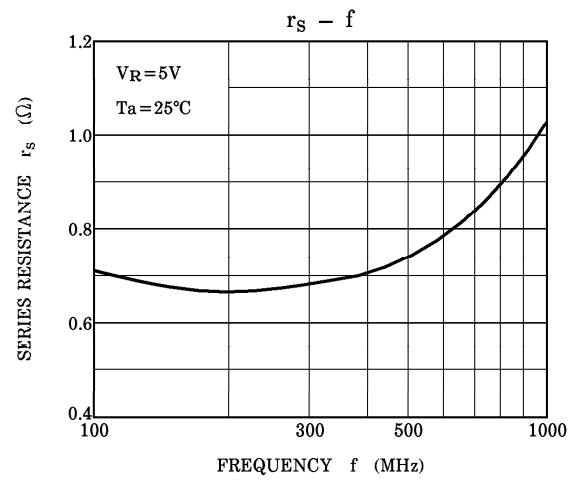
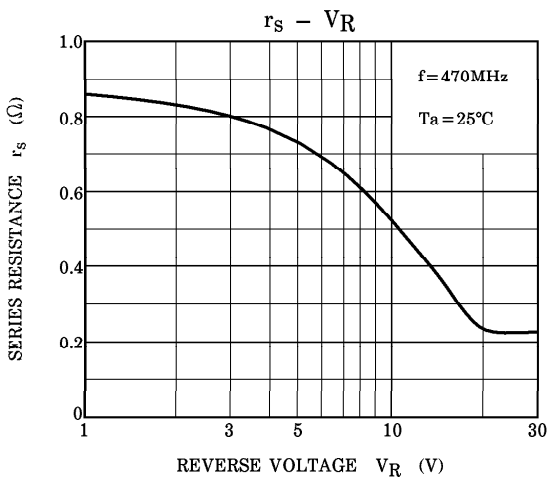
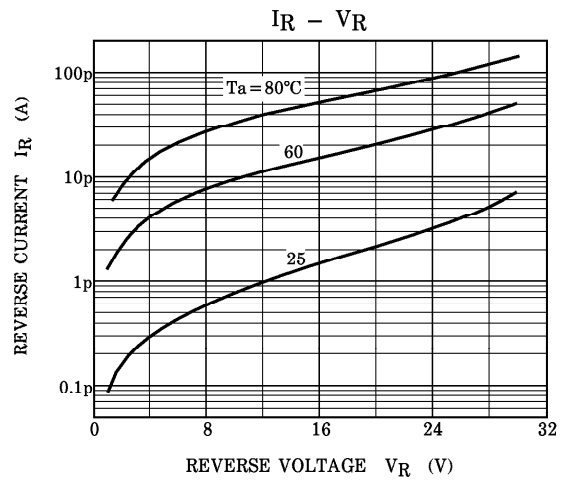
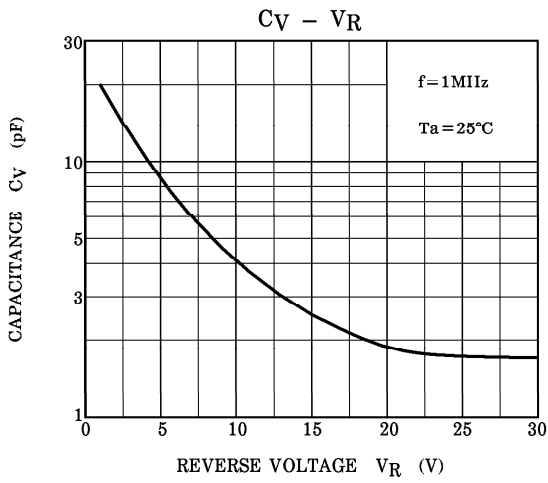


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NOTE : $\delta C (\%) = \frac{C(T_a) - C(25)}{C(25)} \times 100$