

TOSHIBA VARIABLE CAPACITANCE DIODE SILICON EPITAXIAL PLANAR TYPE

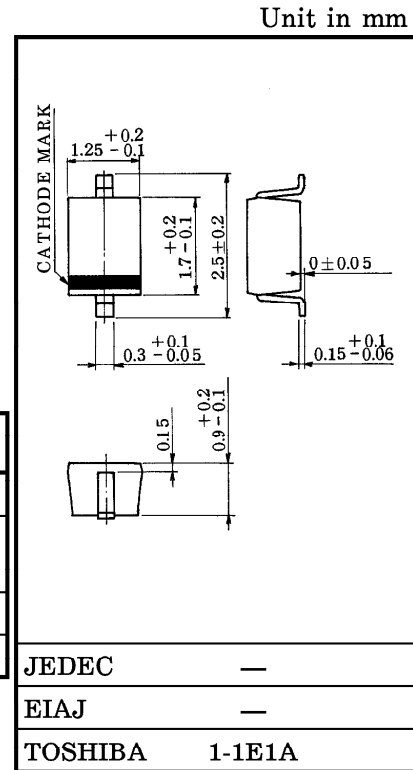
1SV215

CATV TUNING.

- High Capacitance Ratio : $C_{2V} / C_{25V} = 10.5$ (Typ.)
- Low Series Resistance : $r_s = 0.6\Omega$ (Typ.)
- Excellent C-V Characteristics, and Small Tracking Error.
- 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}	$-55 \sim 125$	$^\circ\text{C}$



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}	$V_R = 2\text{V}, f = 1\text{MHz}$	26	—	32	pF
Capacitance	C_{25V}	$V_R = 25\text{V}, f = 1\text{MHz}$	2.5	—	3.2	pF
Capacitance Ratio	C_{2V} / C_{25V}	—	9.5	10.5	—	—
Series Resistance	r_s	$V_R = 5\text{V}, f = 470\text{MHz}$	—	0.6	0.8	Ω

Note 1 : Available in matched group for capacitance to 2.5%.

$$\frac{C(\text{Max.}) - C(\text{Min.})}{C(\text{Min.})} \leq 0.025$$

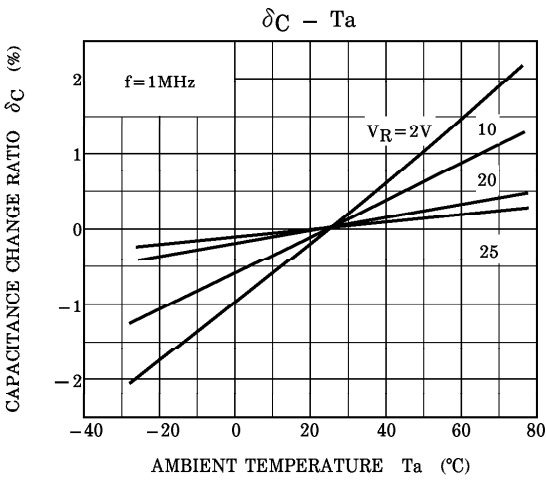
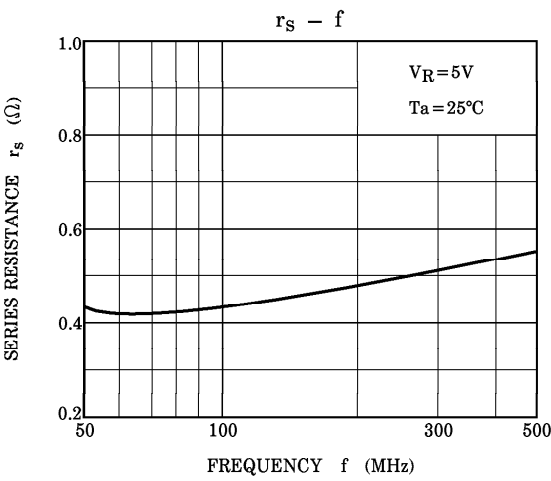
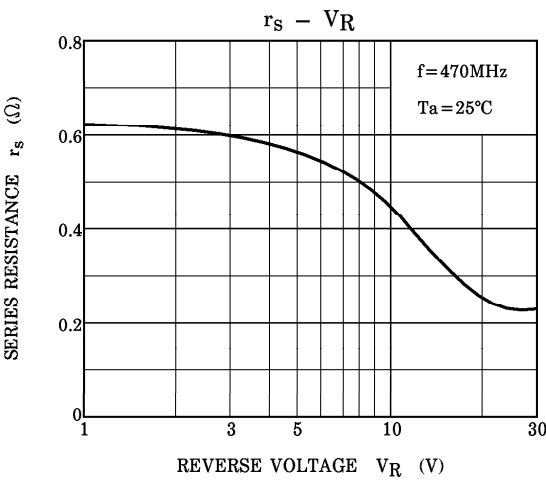
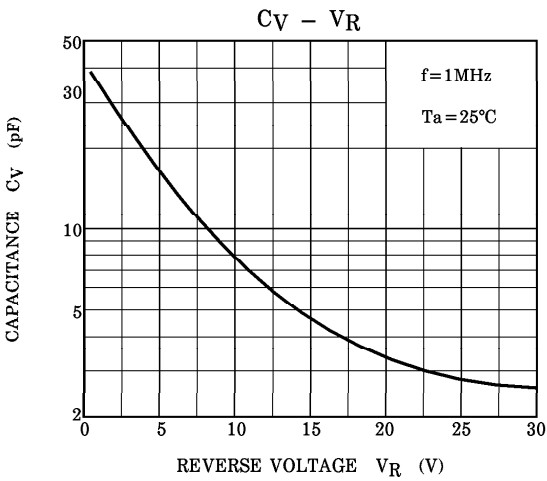
($V_R = 2 \sim 25\text{V}$)

Marking



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