

TOSHIBA VARIABLE CAPACITANCE DIODE SILICON EPITAXIAL PLANAR TYPE

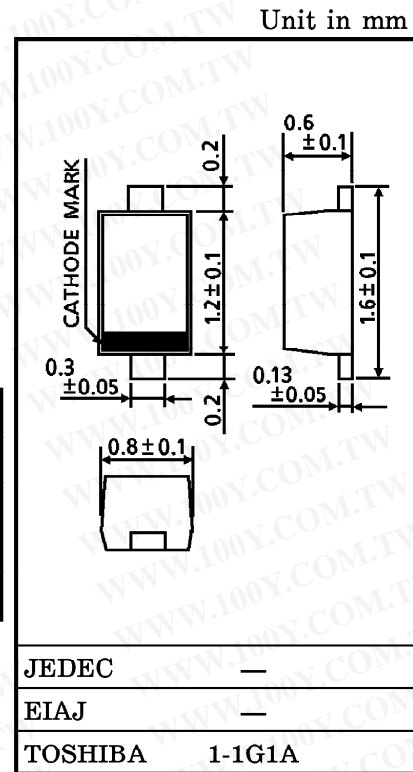
1SV283

CATV TUNING

- High Capacitance Ratio : $C_{2V} / C_{25V} = 11.5$ (TYP.)
- Low Series Resistance : $r_s = 0.55\Omega$ (TYP.)
- Excellent C-V Characteristics, and Small Tracking Error.
- Useful for Small Size Tuner.

MAXIMUM RATINGS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Reverse Voltage	V_R	34	V
Peak Reverse Voltage	V_{RM}	36 ($R_L = 10k\Omega$)	V
Junction Temperature	T_j	125	°C
Storage Temperature Range	T_{stg}	-55~125	°C



Weight : 0.0014g

ELECTRICAL CHARACTERISTICS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Reverse Voltage	V_R	$I_R = 1\mu A$	34	—	—	V
Reverse Current	I_R	$V_R = 32V$	—	—	10	nA
Capacitance	C_{2V}	$V_R = 2V, f = 1MHz$	29	—	34	pF
Capacitance	C_{25V}	$V_R = 25V, f = 1MHz$	2.5	—	2.9	pF
Capacitance Ratio	C_{2V} / C_{25V}	—	11.0	11.5	—	—
Capacitance Ratio	C_{25V} / C_{28V}	—	1.03	—	—	—
Series Resistance	r_s	$V_R = 5V, f = 470MHz$	—	0.55	0.7	Ω

Note 1 : Available in matched group for capacitance to 2.0%.

$$\frac{C(\text{MAX.}) - C(\text{MIN.})}{C(\text{MIN.})} \leq 0.02$$

($V_R = 2 \sim 25V$)

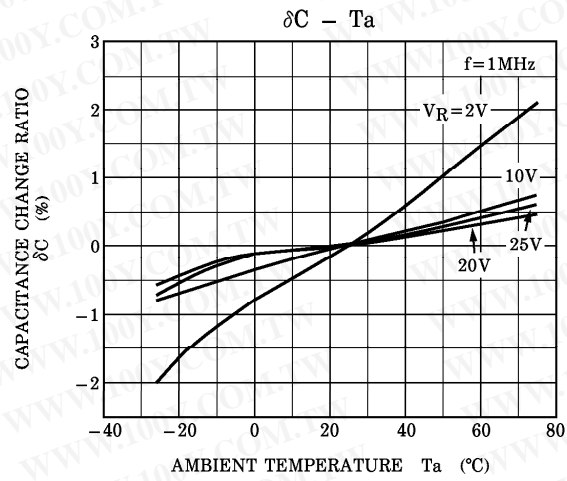
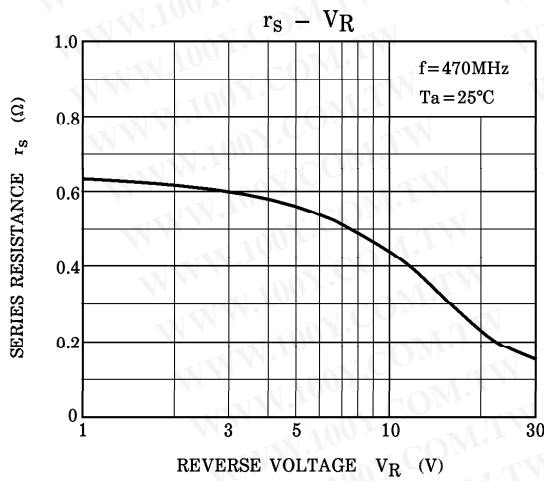
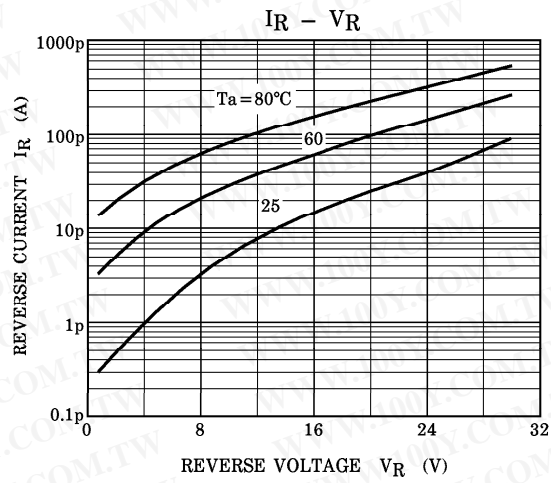
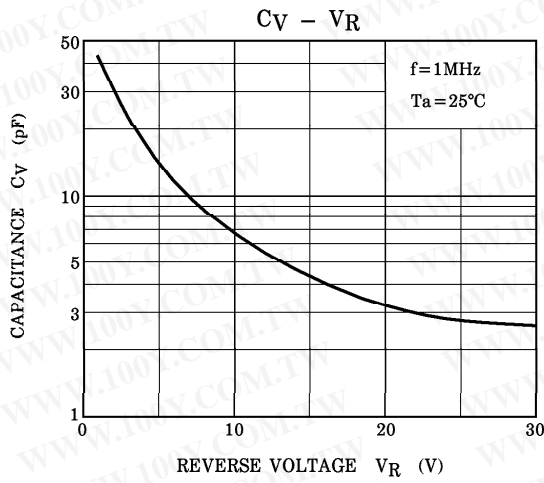
MARKING

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