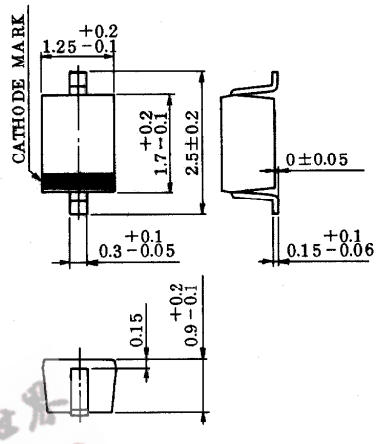
TOSHIBA VARIABLE CAPACITANCE DIODE SILICON EPITAXIAL PLANAR TYPE

1SV214

TV TUNING.

Unit in mm



JEDEC	—
EIAJ	—
TOSHIBA	1-1E1A

Weight : 0.004g

- High Capacitance Ratio : C2V / C25V = 6.5 (Typ.)
- Low Series Resistance : $r_S = 0.4\Omega$ (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	30	V
Peak Reverse Voltage	V_{RM}	35 ($R_L = 10k\Omega$)	V
Junction Temperature	T_j	125	°C
Storage Temperature Range	T_{stg}	−55~125	°C

ELECTRICAL CHARACTERISTICS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Reverse Voltage	V_R	$I_R = 1\mu A$	30	—	—	V
Reverse Current	I_R	$V_R = 28V$	—	—	10	nA
Capacitance	C2V	$V_R = 2V$, f = 1MHz	14.16	—	16.25	pF
Capacitance	C25V	$V_R = 25V$, f = 1MHz	2.11	—	2.43	pF
Capacitance Ratio	C2V / C25V	—	5.90	6.50	7.15	—
Series Resistance	r_s	$V_R = 5V$, f = 470MHz	—	0.4	0.55	Ω

Note 1 : Units are compounded in one package and are matched to 2.5%.

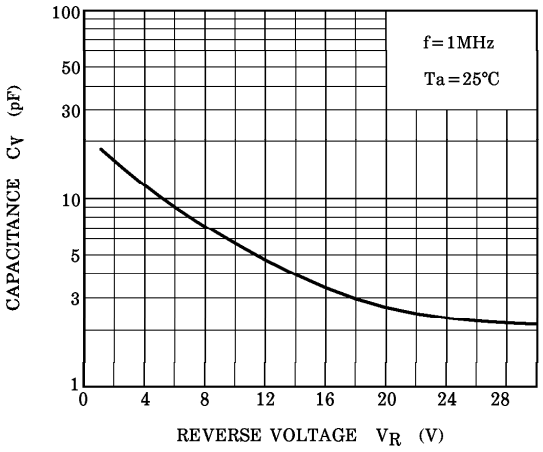
$$\frac{C(Max.) - C(Min.)}{C(Min.)} \leqq 0.025$$

($V_R = 2 \sim 25V$)

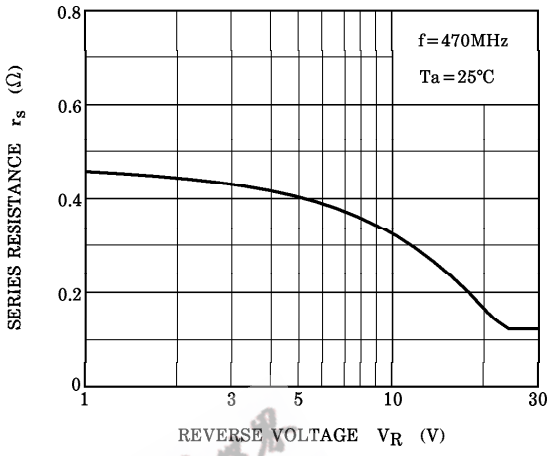
Marking

961001EAA2

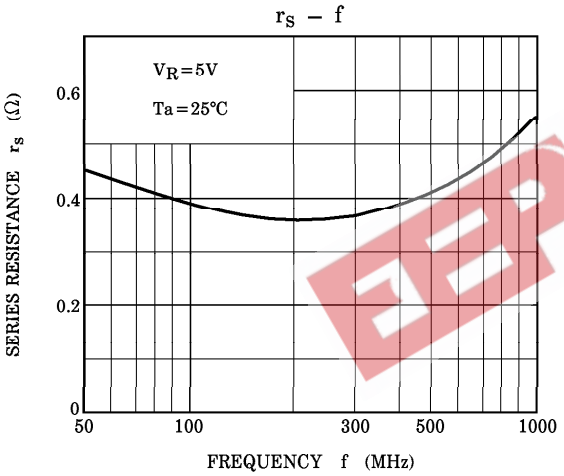
$C_V - V_R$



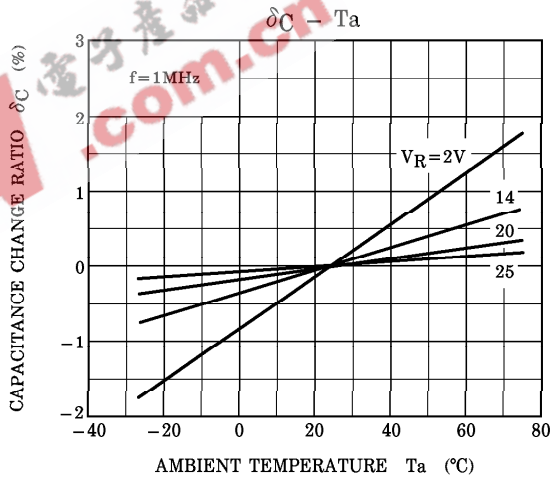
$r_S - V_R$



$r_S - f$



$\delta C - Ta$



NOTE : $\delta_C = \dfrac{C(Ta) - C(25)}{C(25)} \times 100$