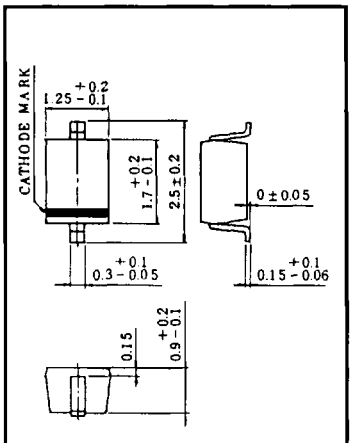
1SV238

SILICON EPITAXIAL PLANAR TYPE
VARIABLE CAPACITANCE DIODE

CATV TUNING.

- High Capacitance Ratio: C2V / C25V = 11.5 (Typ.)
- Excellent C-V Characteristics, and Small Tracking Error.
- Usful for Small Size Tuner.

Unit in mm



JEDEC	—
EIAJ	—
TOSHIBA	1-1E1A

Weight : 0.004g

MAXIMUM RATINGS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Reverse Voltage	V_R	30	V
Peak Reverse Voltage	V_{RM}	35 (RL = 10kΩ)	V
Junction Temperature	T_j	125	°C
Storage Temperature Range	T_{stg}	−55~125	°C

ELECTRICAL CHARACTERISTICS (Ta = 25°C)

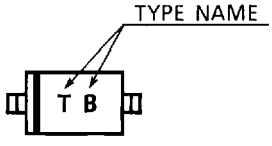
CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Reverse Voltage	V_R	I_R = 1μA	30	—	—	V
Reverse Current	I_R	V_R = 28V	—	—	10	nA
Capacitance	C2V	V_R = 2V, f = 1MHz	31	35	38	pF
Capacitance	C25V	V_R = 25V, f = 1MHz	2.75	3.0	3.25	pF
Capacitance Ratio	C2V / C25V	—	10.7	11.5	—	—
Series Resistance	r_s	V_R = 5V, f = 470MHz	—	0.7	0.85	Ω

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

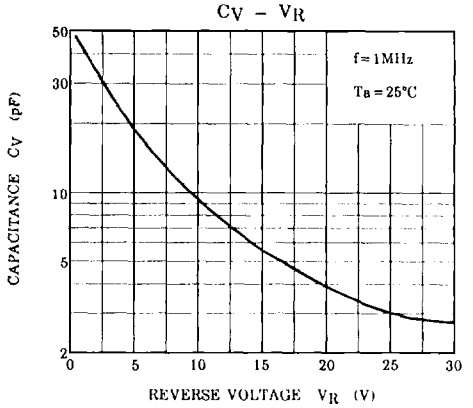
$$\frac{C(Max.) - C(Min.)}{C(Min.)} \leqq 0.025$$

(VR = 2~25V)

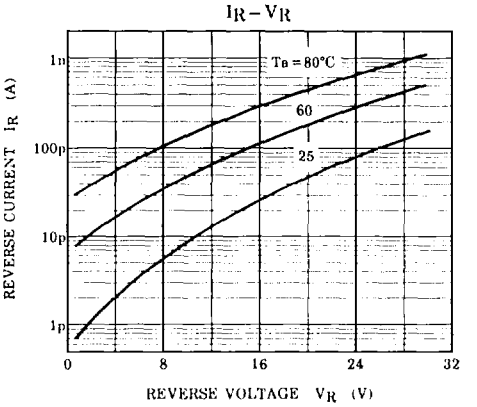
Marking



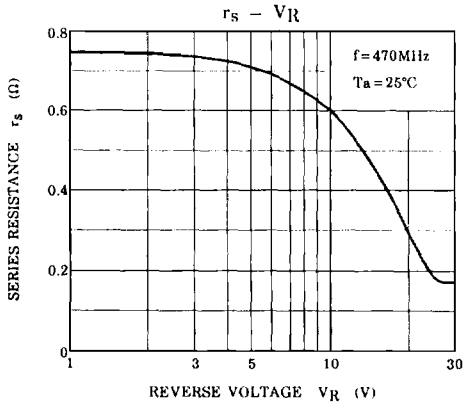
$C_V - V_R$



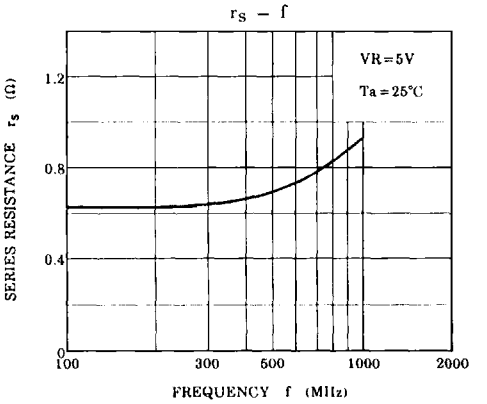
$I_R - V_R$



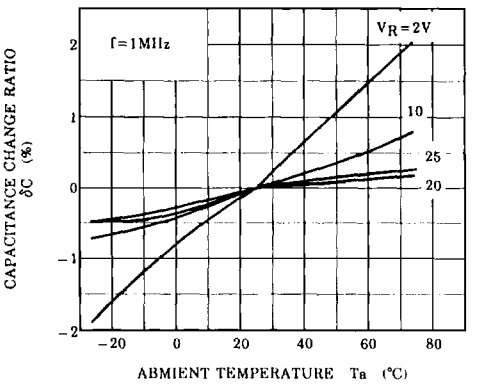
$r_S - V_R$



$r_S - f$



$\delta C - Ta$



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