

TOSHIBA VARIABLE CAPACITANCE DIODE SILICON EPITAXIAL PLANAR TYPE

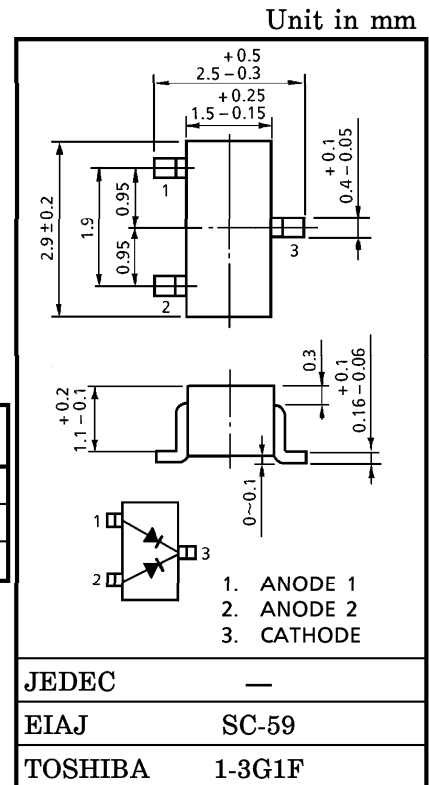
1SV228

ELECTRONIC TUNING APPLICATIONS OF FM RECEIVERS

- Low r_s : $r_s=0.3\Omega$ (Typ.)
- Small Package

MAXIMUM RATINGS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Reverse Voltage	V_R	15	V
Junction Temperature	T_j	125	°C
Storage Temperature	T_{stg}	-55~125	°C



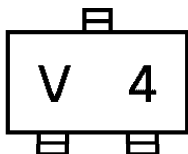
Weight : 0.013g

ELECTRICAL CHARACTERISTICS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Reverse Voltage	V_R	$I_R=10\mu A$	15	—	—	V
Reverse Current	I_R	$V_R=15V$	—	—	10	nA
Capacitance	C_{3V}	$V_R=3V, f=1MHz$ (Note)	28.5	30.5	32.5	pF
Capacitance	C_{8V}	$V_R=8V, f=1MHz$ (Note)	11.7	12.7	13.7	pF
Capacitance Ratio	C_{3V}/C_{8V}	— (Note)	2.1	—	2.6	—
Series Resistance	r_s	$V_R=3V, f=100MHz$ (Note)	—	0.3	0.5	Ω

(Note) : Characteristics between Anode 1 and Anode 2

MARKING



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Table 1 : ADDRESS CLASSIFICATION OF CAPACITANCE
 TEST CONDITION : f = 1MHz, Ta = 25°C

No.	C _{2V}	C _{3V}	C _{6V}	C _{8V}
1	34.70~35.74	28.60~29.45	16.80~17.30	11.72~12.07
2	35.56~36.62	29.31~30.18	17.21~17.72	12.01~12.37
3	36.44~37.53	30.03~30.93	17.63~18.15	12.31~12.67
4	37.35~38.47	30.77~31.69	18.06~18.60	12.61~12.98
5	38.27~39.41	31.53~32.47	18.50~19.05	12.92~13.30
6	—	—	18.95~19.51	13.23~13.62

- (1) Units are compounded in one package and are matched to 3%.

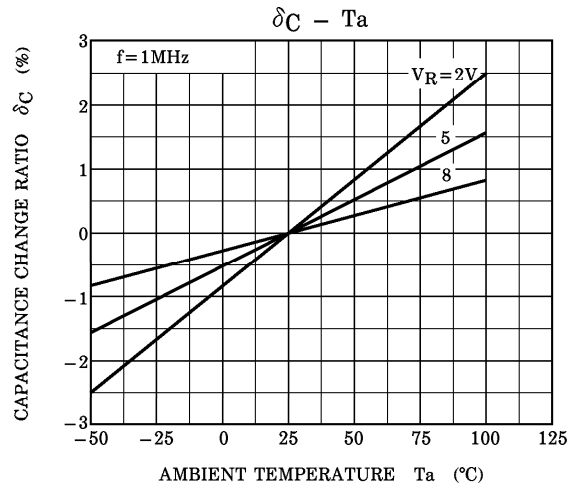
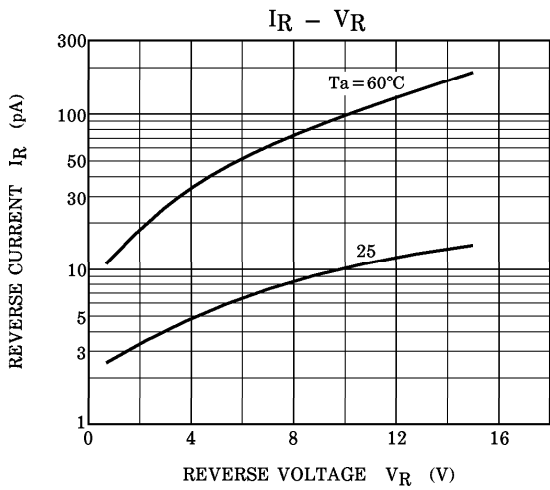
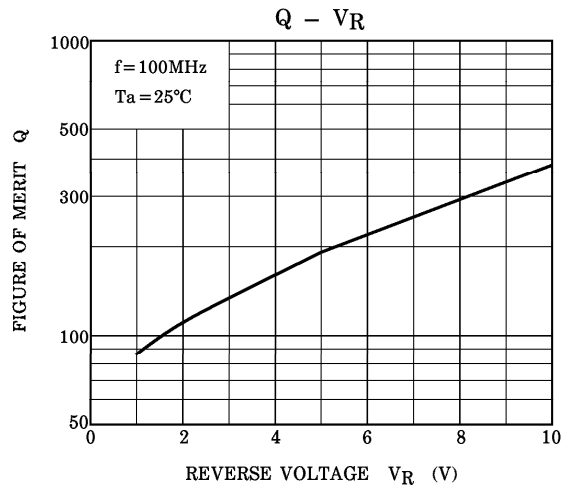
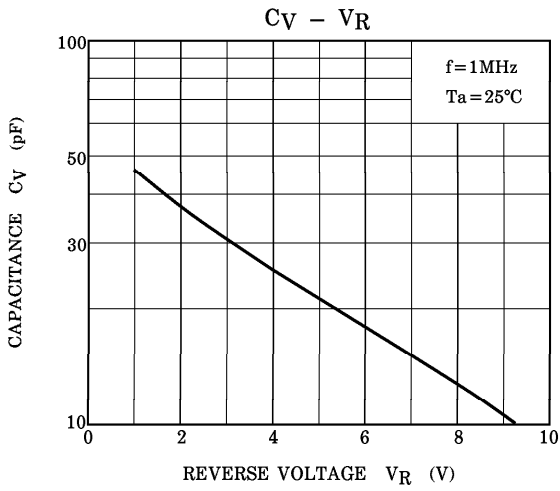
$$\frac{C(\text{Max.}) - C(\text{Min.})}{C(\text{Min.})} \leq 0.03 \quad (V_R = 2 \sim 8V)$$

and capacitance is classified as Table 1.

- (2) C_{2V}, C_{3V}, C_{6V}, C_{8V} are A1-A2 capacitance.
 (3) The tolerance of address is ±1 address.

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