TOSHIBA Variable Capacitance Diode Silicon Epitaxial Planar Type

1SV288

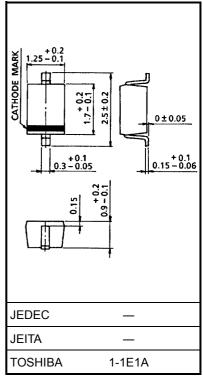
CATV Tuning

Unit: mm

- High capacitance ratio: $C_2 \text{ V/}C_{25} \text{ V} = 16 \text{ (typ.)}$
- Low series resistance: $r_s = 0.92 \Omega$ (typ.)
- Excellent C-V characteristics, and small tracking error.
- Useful for small size tuner.

Maximum Ratings (Ta = 25°C)

Characteristics	Symbol	Rating	Unit
Reverse voltage	V_{R}	30	V
Peak reverse voltage	V_{RM}	35 ($R_L = 10 \text{ k}\Omega$)	V
Junction temperature	Tj	125	°C
Storage temperature range	T _{stg}	−55~125	°C



Weight: 0.004 g (typ.)

Electrical Characteristics (Ta = 25°C)

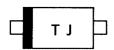
Characteristics	Symbol	Test Condition	Min	Тур.	Max	Unit
Reverse voltage	V_{R}	$I_R = 1 \mu A$	30	_	_	V
Reverse current	I _R	V _R = 28 V	_	_	10	nA
Capacitance	C _{2 V}	V _R = 2 V, f = 1 MHz	41	_	49.5	pF
Capacitance	C _{25 V}	V _R = 25 V, f = 1 MHz	2.5	_	3.2	pF
Capacitance ratio	C _{2 V} /C _{25 V}	_	15	16	_	_
Series resistance	r _s	$V_R = 5 V, f = 470 MHz$		0.92	1.05	Ω

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

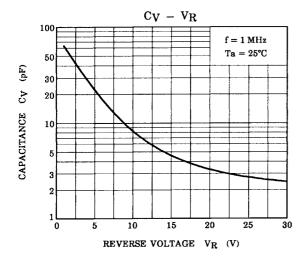
$$\frac{C \text{ (max)} - C \text{ (min)}}{C \text{ (min)}} \le 0.025$$

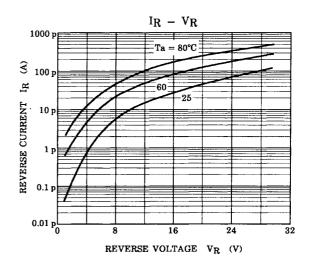
$$(V_R = 2 \sim 25 V)$$

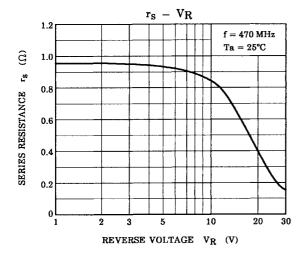
Marking

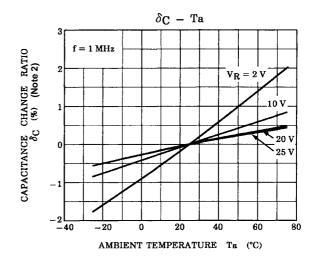


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Note 2:
$$\delta_C = \frac{C (Ta) - C (25)}{C (25)} \times 100$$
 (%)

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