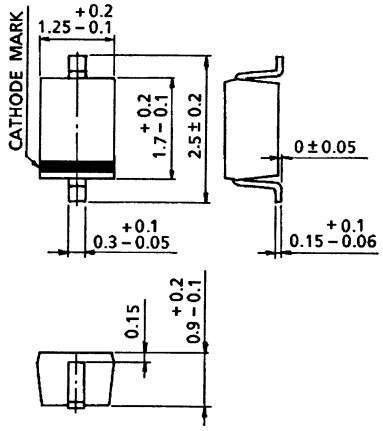
TOSHIBA Variable Capacitance Diode Silicon Epitaxial Planar Type

1SV245

UHF SHF Tuning

Unit: mm

- High capacitance ratio: C2 V/C25 V = 5.7 (typ.)
- Low series resistance: rs = 1.2 Ω (typ.)
- Excellent C-V characteristics, and small tracking error.



JEDEC	—
JEITA	—
TOSHIBA	1-1E1A

Weight: 0.004 g (typ.)

Maximum Ratings (Ta = 25°C)

Characteristics	Symbol	Rating	Unit
Reverse voltage	V_R	30	V
Peak reverse voltage	V_{RM}	35 (R_L = 10 kΩ)	V
Junction temperature	T_j	125	°C
Storage temperature range	T_{stg}	−55~125	°C

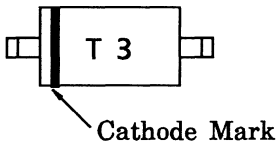
Electrical Characteristics (Ta = 25°C)

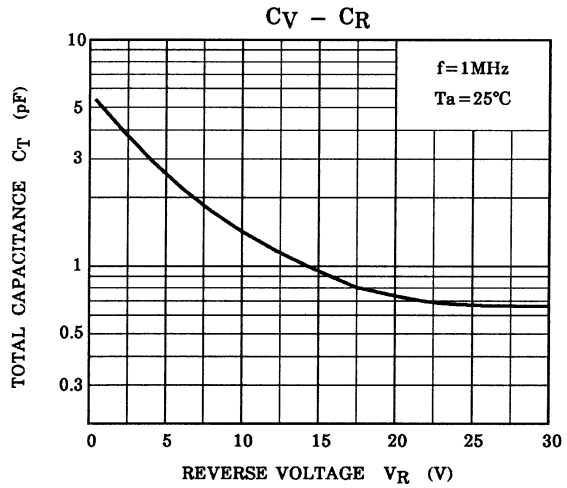
Characteristics	Symbol	Test Condition	Min	Typ.	Max	Unit
Reverse voltage	V_R	I_R = 1 μA	30	—	—	V
Reverse current	I_R	V_R = 28 V	—	—	10	nA
Capacitance	C2 V	V_R = 2 V, f = 1 MHz	3.31	—	4.55	pF
Capacitance	C25 V	V_R = 25 V, f = 1 MHz	0.61	—	0.77	pF
Capacitance ratio	C2 V/C25 V	—	5.0	5.7	6.5	—
Series resistance	r_s	V_R = 1 V, f = 470 MHz	—	1.2	2.0	Ω

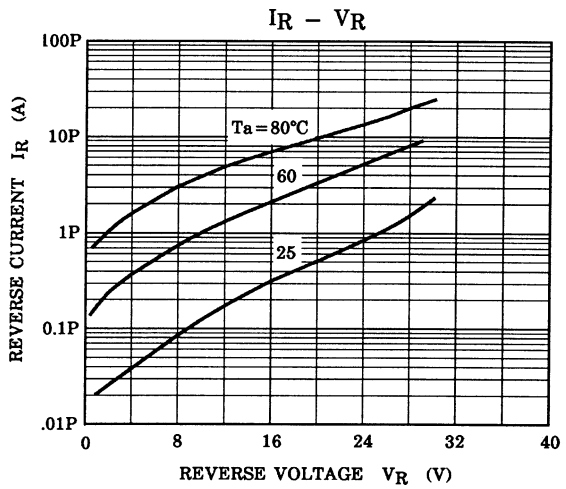
Note 1: Unites are compounded in one package and are matched to 6.0%.

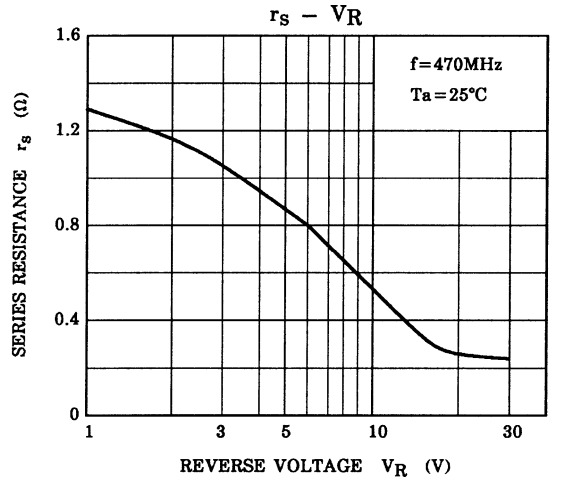
$$\frac{C\ (max) - C\ (min)}{C\ (min)} \leqq 0.06\ (VR = 2\sim25\ V)$$

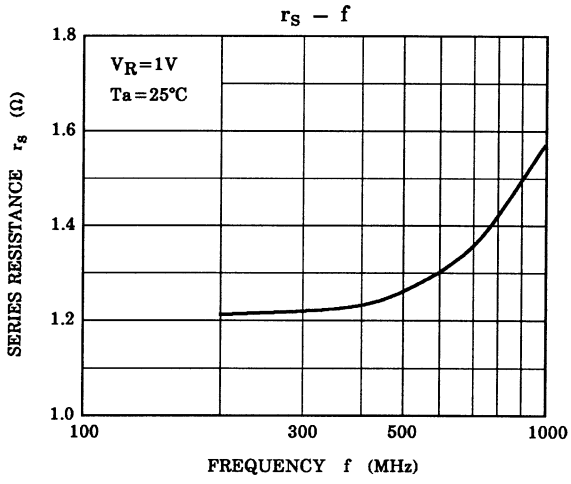
Marking

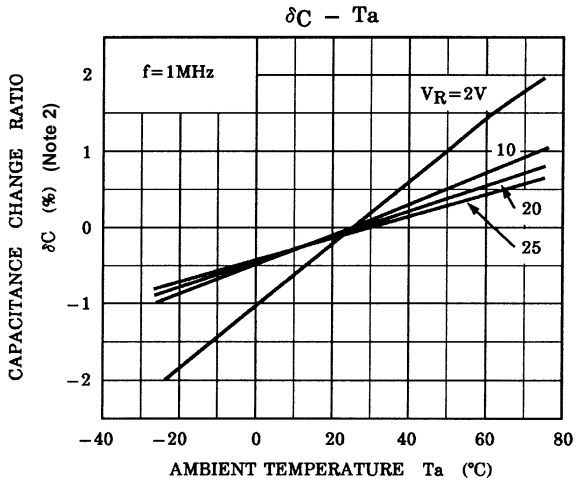












Note 2: $\delta_C = \dfrac{C\ (Ta) - C\ (25)}{C\ (25)} \times 100\ \ (\%)$

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