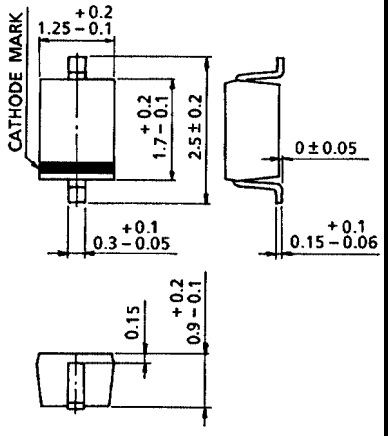
TOSHIBA Variable Capacitance Diode Silicon Epitaxial Planar Type

1SV269

CATV Tuning

- High capacitance ratio: C2 V/C25 V = 11.5 (typ.)
- Low series resistance: rs = 0.55 Ω (typ.)
- Excellent C-V characteristics, and small tracking error.
- Small package

Unit: mm



JEDEC	—
JEITA	—
TOSHIBA	1-1E1A

Weight: 0.004 g (typ.)

Maximum Ratings (Ta = 25°C)

Characteristics	Symbol	Rating	Unit
Reverse voltage	V_R	34	V
Peak reverse voltage	V_{RM}	36 (R_L = 10 kΩ)	V
Junction temperature	T_j	125	°C
Storage temperature range	T_{stg}	−55~125	°C

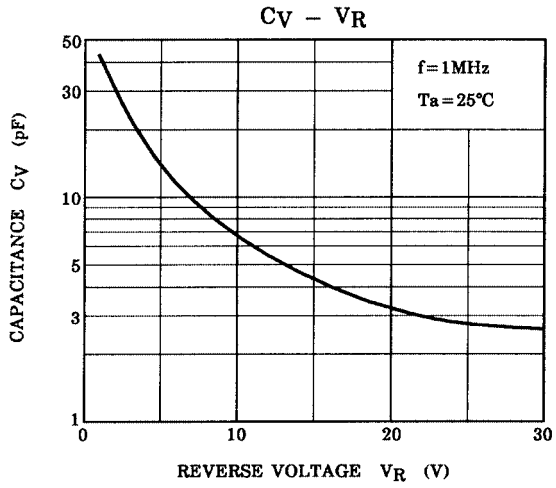
Electrical Characteristics (Ta = 25°C)

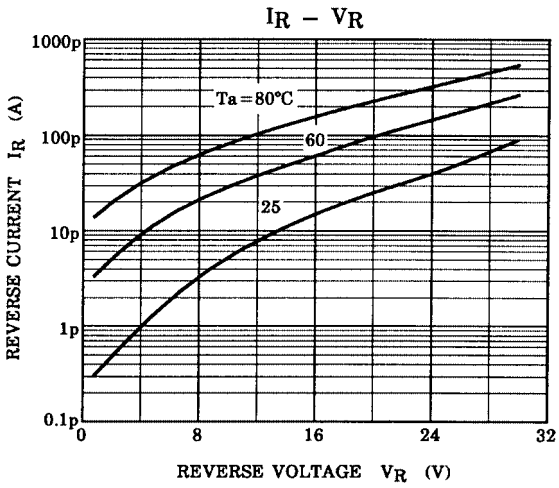
Characteristics	Symbol	Test Condition	Min	Typ.	Max	Unit
Reverse voltage	V_R	I_R = 1 μA	34	—	—	V
Reverse current	I_R	V_R = 32 V	—	—	10	nA
Capacitance	C2 V	V_R = 2 V, f = 1 MHz	29	31.5	34	pF
Capacitance	C25 V	V_R = 25 V, f = 1 MHz	2.5	2.75	2.9	pF
Capacitance ratio	C2 V/C25 V	—	11.0	11.5	—	—
Capacitance ratio	C25 V/C28 V	—	1.03	1.05	—	—
Series resistance	r_s	V_R = 5 V, f = 470 MHz	—	0.55	0.7	Ω

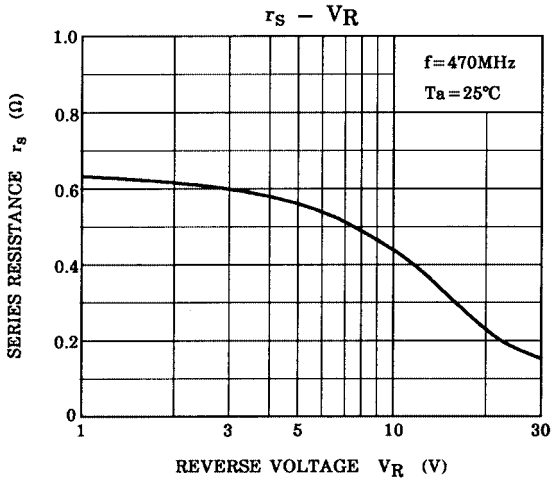
Note 1: Available in matched group for capacitance to 2.0%.

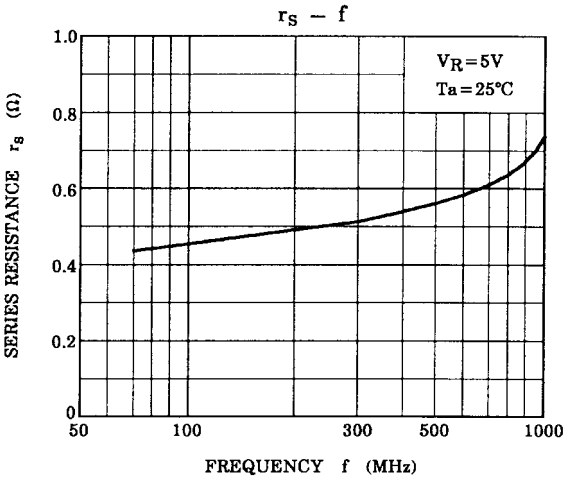
$$\frac{C\ (max) - C\ (min)}{C\ (min)} \leqq 0.02\ (VR = 2\sim25\ V)$$

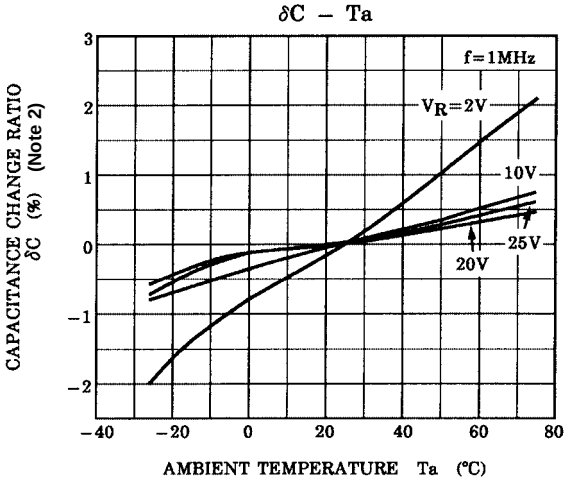
Marking











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

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