TOSHIBA Variable Capacitance Diode Silicon Epitaxial Planar Type

1SV262

CATV Tuning

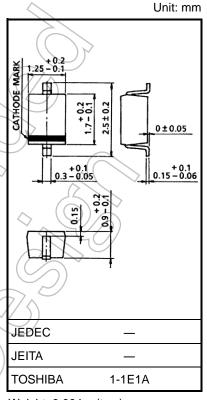
- High capacitance ratio: $C_{2V}/C_{25V} = 12.5$ (typ.)
- Low series resistance: $rs = 0.6 \Omega$ (typ.)
- Excellent C-V characteristics, and small tracking error.
- · Small package

Absolute Maximum Ratings (Ta = 25°C)

Characteristics	Symbol	Rating	Unit
Reverse voltage	V _R	34	$(\nearrow \land)$
Peak reverse voltage	V _{RM}	$36 (R_L = 10 kΩ)$	(A
Junction temperature	Tj	125	ç
Storage temperature range	T _{stg}	-55 to 125	°C

Note: Using continuously under heavy loads (e.g. the application of high temperature/current/voltage and the significant change in temperature, etc.) may cause this product to decrease in the reliability significantly even if the operating conditions (i.e. operating temperature/current/voltage, etc.) are within the absolute maximum ratings.

Please design the appropriate reliability upon reviewing the Toshiba Semiconductor Reliability Handbook ("Handling Precautions"/"Derating Concept and Methods") and individual reliability data (i.e. reliability test report and estimated failure rate, etc).



Weight: 0.004 g (typ.)

Electrical Characteristics (Ta = 25°C)

Characteristics	Symbol	Test Condition	Min	Тур.	Max	Unit
Reverse voltage	VR	1 _R = 1 μA	34	_	_	V
Reverse current	IR	V _R = 32 V	_	_	10	nA
Capacitance (Note 1)	C2 V	V _R = 2 V, f = 1 MHz	33	35.5	38	n.E
Capacitance (Note 1)	C25 V	V _R = 25 V, f = 1 MHz	2.6	2.85	3.0	pF
Capacitance ratio	C2 V/C25 V	_	12.0	12.5	-	1
Capacitance ratio	C25 V/C28 V	_	1.03	_		_
Series resistance	rs	V _R = 5 V, f = 470 MHz	_	0.6	0.8	Ω

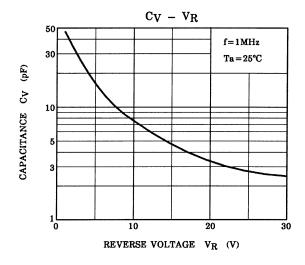
Note 1: Available in matched group for capacitance to 2.0%. For devices with the ordering number 1SV262(TPH2,F).

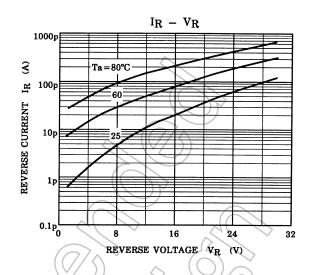
$$\frac{C \text{ (max)} - C \text{ (min)}}{C \text{ (min)}} \leq 0.02 \text{ (VR} = 2~25 \text{ V)}$$

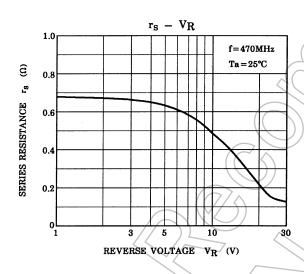
Marking

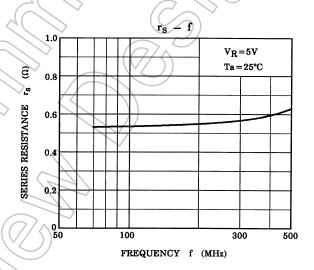


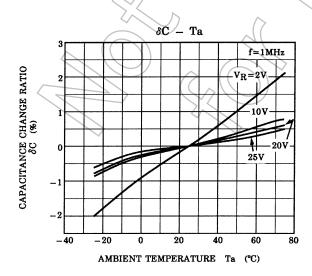
Start of commercial production 1998-08











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

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