

TOSHIBA Variable Capacitance Diode Silicon Epitaxial Planar Type

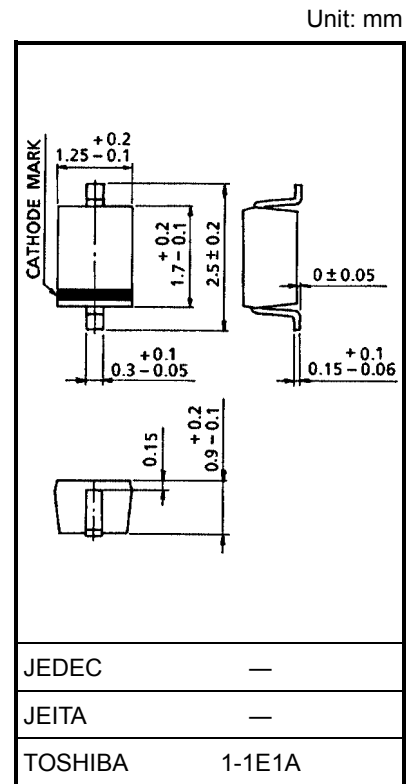
# 1SV262

## CATV Tuning

- High capacitance ratio:  $C2 V/C25 V = 12.5$  (typ.)
- Low series resistance:  $r_s = 0.6 \Omega$  (typ.)
- Excellent C-V characteristics, and small tracking error.
- Small package

## Maximum Ratings (Ta = 25°C)

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



## Electrical Characteristics (Ta = 25°C)

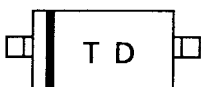
Weight: 0.004 g (typ.)

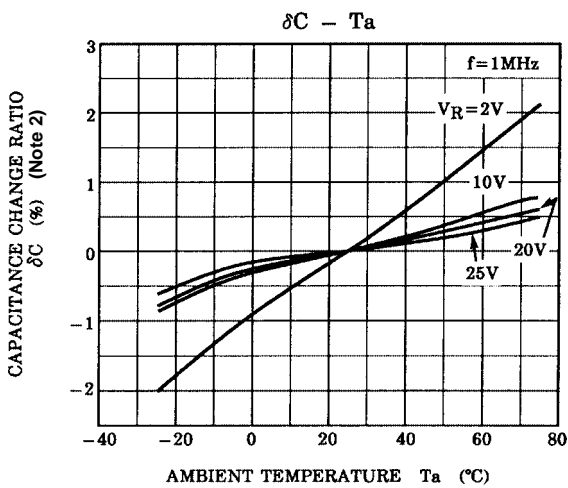
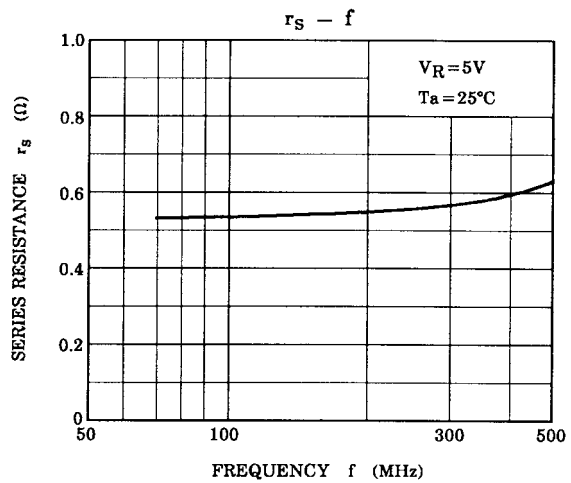
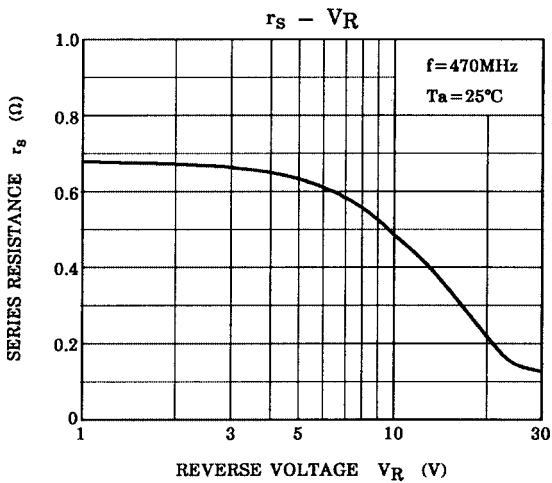
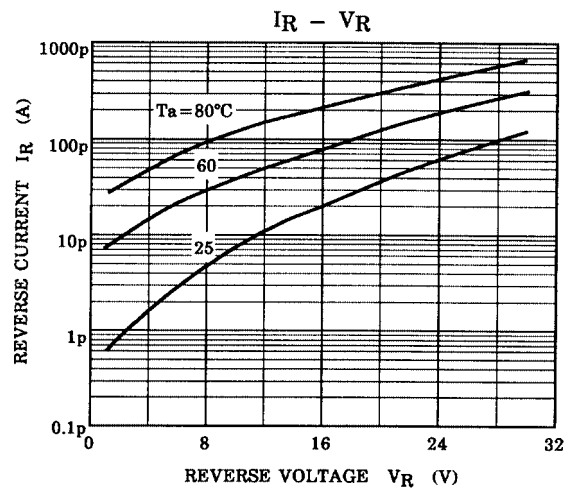
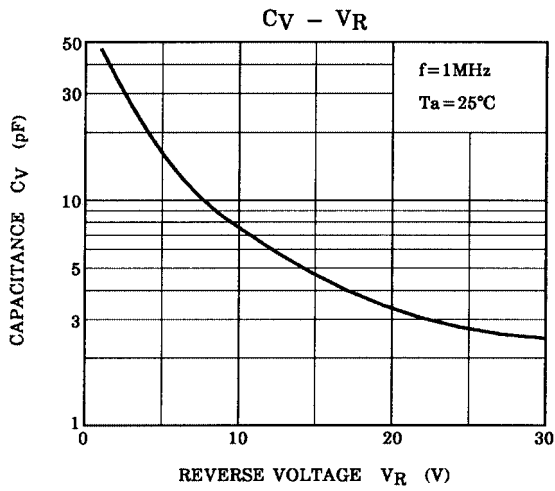
Characteristics	Symbol	Test Condition	Min	Typ.	Max	Unit
Reverse voltage	$V_R$	$I_R = 1 \mu A$	34	—	—	V
Reverse current	$I_R$	$V_R = 32 V$	—	—	10	nA
Capacitance	$C2 V$	$V_R = 2 V, f = 1 MHz$	33	35.5	38	pF
Capacitance	$C25 V$	$V_R = 25 V, f = 1 MHz$	2.6	2.85	3.0	pF
Capacitance ratio	$C2 V/C25 V$	—	12.0	12.5	—	—
Capacitance ratio	$C25 V/C28 V$	—	1.03	—	—	—
Series resistance	$r_s$	$V_R = 5 V, f = 470 MHz$	—	0.6	0.8	$\Omega$

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

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

## Marking





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

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