

TOSHIBA Variable Capacitance Diode Silicon Epitaxial Planar Type

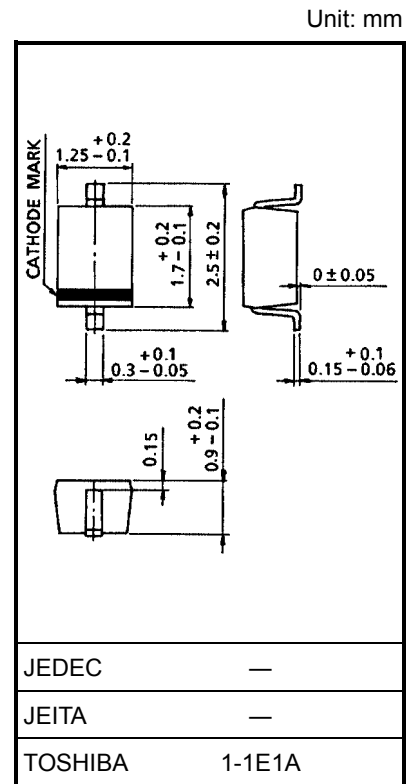
# 1SV245

## UHF SHF Tuning

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

## Maximum Ratings (Ta = 25°C)

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



## Electrical Characteristics (Ta = 25°C)

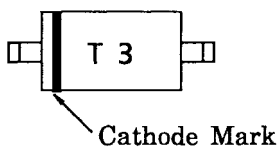
Weight: 0.004 g (typ.)

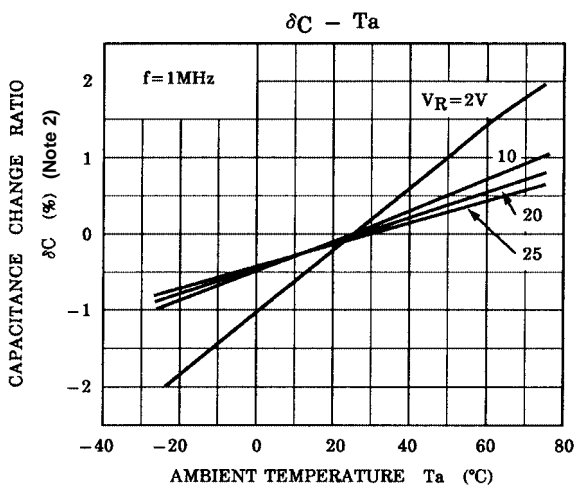
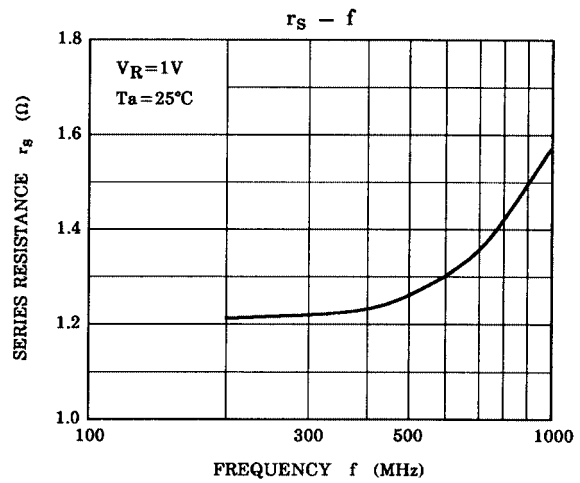
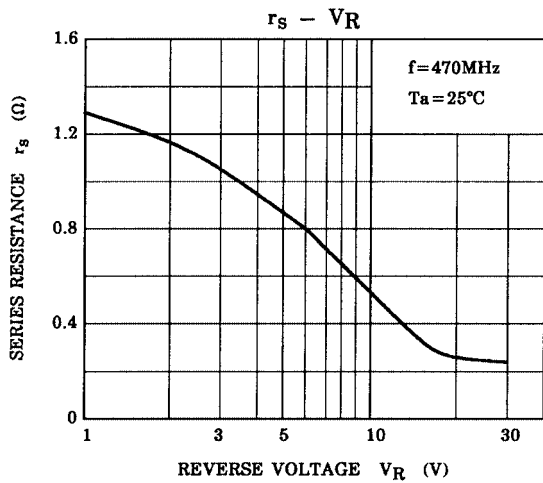
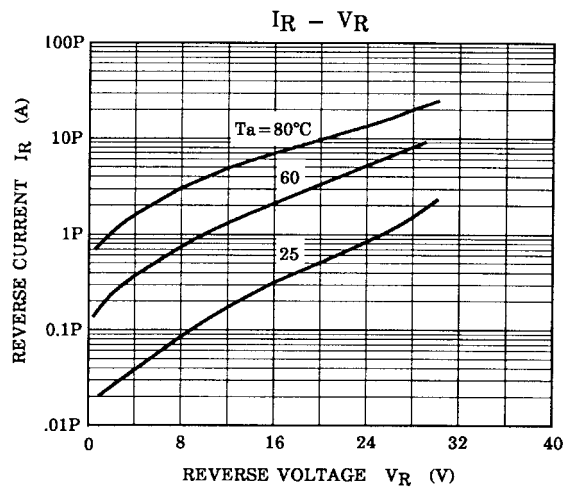
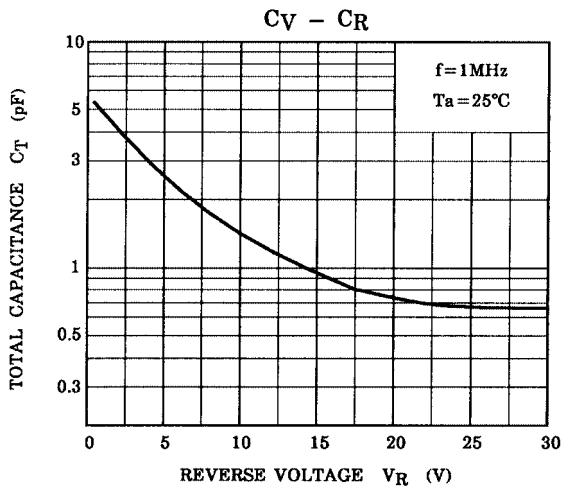
Characteristics	Symbol	Test Condition	Min	Typ.	Max	Unit
Reverse voltage	$V_R$	$I_R = 1 \mu A$	30	—	—	V
Reverse current	$I_R$	$V_R = 28 V$	—	—	10	nA
Capacitance	$C2 V$	$V_R = 2 V, f = 1 MHz$	3.31	—	4.55	pF
Capacitance	$C25 V$	$V_R = 25 V, f = 1 MHz$	0.61	—	0.77	pF
Capacitance ratio	$C2 V/C25 V$	—	5.0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

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

$$\frac{C(\max) - C(\min)}{C(\min)} \leq 0.06 \quad (V_R = 2\sim 25 V)$$

## Marking





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

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