Unit: mm

TOSHIBA Variable Capacitance Diode Silicon Epitaxial Planar Type

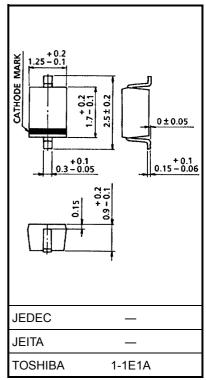
# 1SV214

TV Tuning

- High capacitance ratio: C2 V/C25 V = 6.5 (typ.)
- Low series resistance:  $r_s = 0.4 \Omega$  (typ.)
- Excellent C-V characteristics, and small tracking error.
- Useful for small size tuner.

#### Maximum Ratings (Ta = 25°C)

Characteristics	Symbol	Rating	Unit
Reverse voltage	V <sub>R</sub>	30	V
Peak reverse voltage	V <sub>RM</sub>	35 (R <sub>L</sub> = 10 k $\Omega$ )	V
Junction temperature	Тј	125	°C
Storage temperature range	T <sub>stg</sub>	-55~125	°C



Weight: 0.004 g (typ.)

### Electrical Characteristics (Ta = 25°C)

Characteristics	Symbol	Test Condition	Min	Тур.	Max	Unit
Reverse voltage	V <sub>R</sub>	I <sub>R</sub> = 1 μA	30	_	_	V
Reverse current	I <sub>R</sub>	V <sub>R</sub> = 28 V	_	_	10	nA
Capacitance	C2 V	V <sub>R</sub> = 2 V, f = 1 MHz	14.16	_	16.25	pF
Capacitance	C25 V	V <sub>R</sub> = 25 V, f = 1 MHz	2.11	_	2.43	pF
Capacitance ratio	C2 V/C25 V		5.90	6.50	7.15	—
Series resistance	r <sub>s</sub>	V <sub>R</sub> = 5 V, f = 470 MHz	_	0.4	0.55	Ω

Note 1: Units are compounded in one package and are matched to 2.5%.

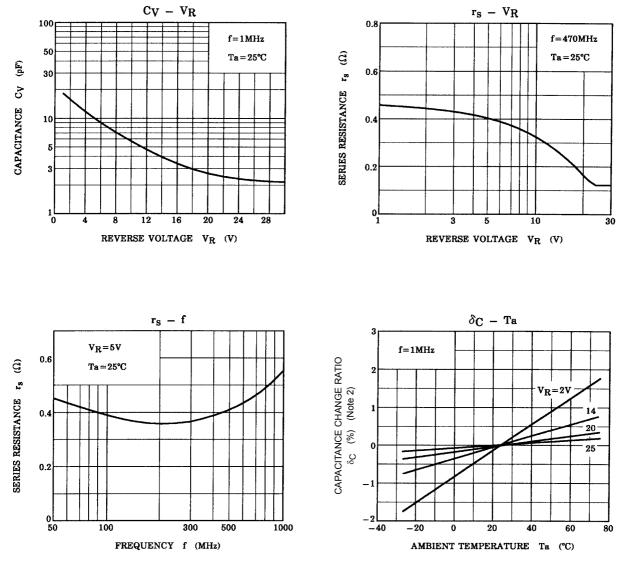
$$\frac{C (max) - C (min)}{C (min)} \leq 0.025$$

(V<sub>R</sub> = 2~25 V)

#### Marking



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

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