

TOSHIBA Diode Silicon Epitaxial Planar Type

JDV2S71E

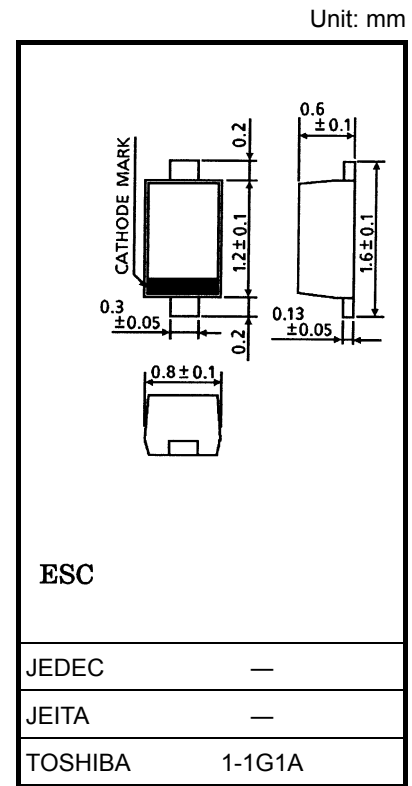
UHF SHF TUNING

- High capacitance ratio: $C_1 \text{ V/C } 25\text{V} = 11.5$ (typ.)
- Low series resistance: $r_s = 1.0 \Omega$ (typ.)
- Excellent C-V characteristics, and small tracking error.
- Useful for small size tuner.

Absolute Maximum Ratings (Ta = 25°C)

Characteristics	Symbol	Rating	Unit
Reverse voltage	V_R	30	V
Peak reverse voltage	V_{RM}	35($R_L=10 \text{ kohm}$)	V
Junction temperature	T_j	150	°C
Storage temperature range	T_{stg}	-55~150	°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: 0.0014 g (typ.)

Electrical Characteristics (Ta = 25°C)

Characteristics	Symbol	Test Condition	Min	Typ.	Max	Unit
Reverse voltage	V_R	$I_R = 1 \mu\text{A}$	30	—	—	V
Reverse current	I_R	$V_R = 28 \text{ V}$	—	—	10	nA
Capacitance	$C_{1 \text{ V}}$	$V_R = 1 \text{ V}, f = 1 \text{ MHz}$	6	—	7.2	pF
Capacitance	$C_{25 \text{ V}}$	$V_R = 25 \text{ V}, f = 1 \text{ MHz}$	0.49	—	0.64	pF
Capacitance ratio	$C_{1 \text{ V}}/C_{25 \text{ V}}$	—	10	11.5	—	—
Series resistance	r_s	$V_R = 5 \text{ V}, f = 470 \text{ MHz}$	—	1	1.5	Ω

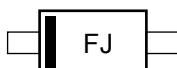
Note1: Signal level when capacitance is measured: $V_{sig} = 500 \text{ mVrms}$

Note2: Available in matched group for capacitance to 6%

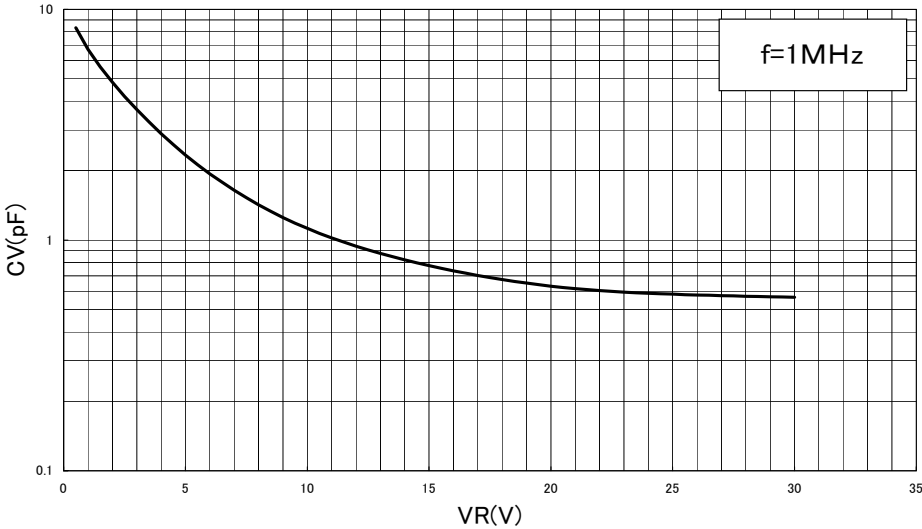
$$\frac{C(\text{max}) - C(\text{min})}{C(\text{min})} \leq 0.06$$

($V_R=1 \sim 25\text{V}$)

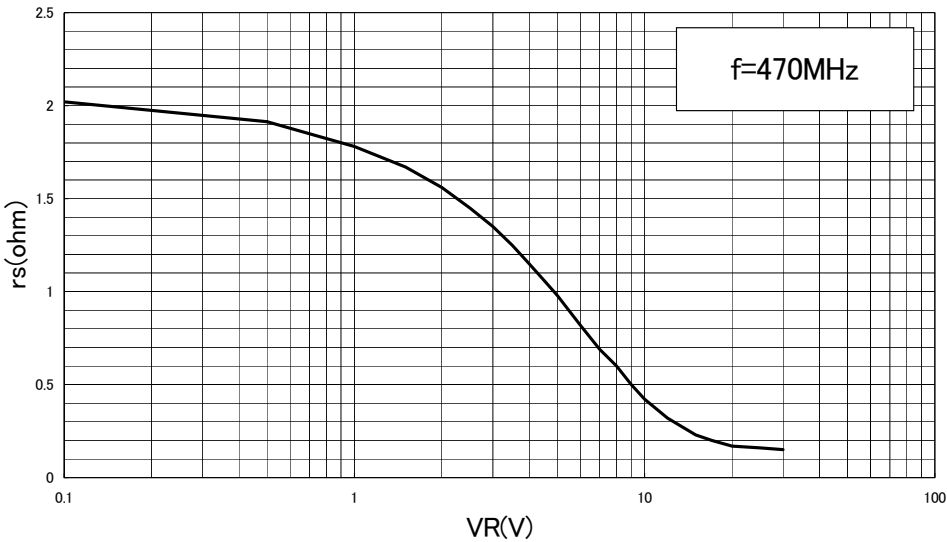
Marking



CV-VR



rs-VR



RESTRICTIONS ON PRODUCT USE

20070701-EN GENERAL

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