

TOSHIBA Diode Silicon Epitaxial Planar Type

# JDV2S71E

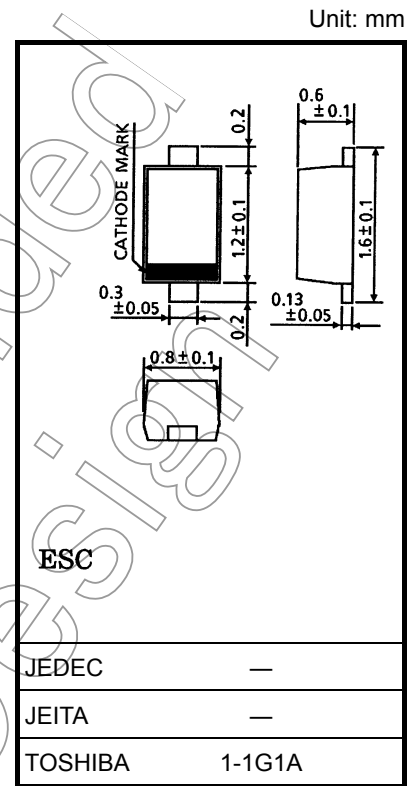
## UHF SHF Tuning

- High capacitance ratio:  $C_1 / C_{25V} = 11.5$  (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	$V_R$	$I_R = 1 \mu A$	30	—	—	V
Reverse current	$I_R$	$V_R = 28 V$	—	—	10	nA
Capacitance	$C_{1V}$	$V_R = 1 V, f = 1 \text{ MHz}$	6	—	7.2	pF
Capacitance	$C_{25V}$	$V_R = 25V, f = 1 \text{ MHz}$	0.49	—	0.64	pF
Capacitance ratio	$C_{1V} / C_{25V}$	—	10	11.5	—	—
Series resistance	$r_s$	$V_R = 5 V, f = 470 \text{ MHz}$	—	1	1.5	$\Omega$

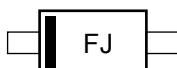
Note1: Signal level when capacitance is measured:  $V_{sig} = 500 \text{ mVrms}$

Note2: Available in matched group for capacitance to 6%

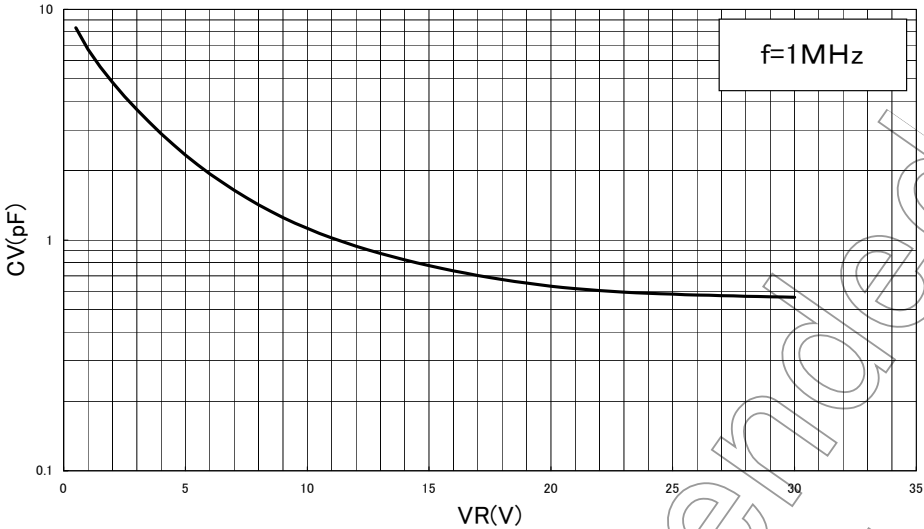
$$\frac{C(\text{max}) - C(\text{min})}{C(\text{min})} \leq 0.06$$

( $V_R = 1 \sim 25V$ )

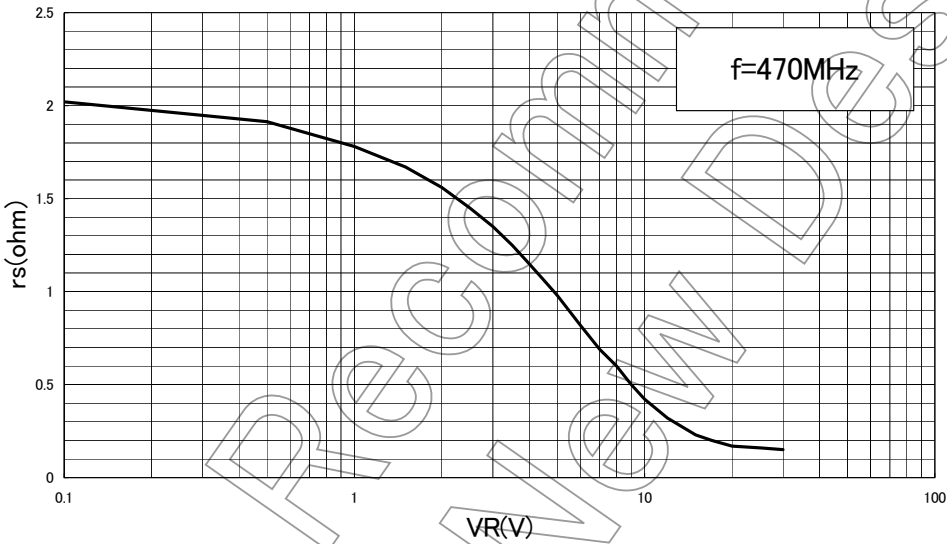
## Marking



CV-VR



rs-VR



Not Recommended for New Design

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