TOSHIBA Diode Silicon Epitaxial Planar Type

JDV2S71E

UHF SHF TUNING

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

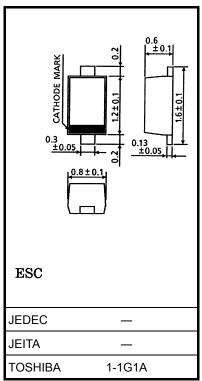
Absolute Maximum Ratings (Ta = 25°C)

Characteristics	Symbol	Rating	Unit
Reverse voltage	V _R	30	V
Peak reverse voltage	V _{RM}	35(R _L =10 kohm)	V
Junction temperature	Tj	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	Тур.	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 _{1 V}	V _R = 1 V, f = 1 MHz	6	_	7.2	pF
Capacitance	C _{25 V}	V _R = 25V, f = 1 MHz	0.49	_	0.64	pF
Capacitance ratio	C _{1 V} /C _{25 V}		10	11.5	—	_
Series resistance	r _s	$V_{R} = 5 V, f = 470 MHz$		1	1.5	Ω

Note1: Signal level when capacitance is measured: Vsig = 500 mVrms

Note2:Available in matched group for capacitance to 6%

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

(VR=1
$$\sim 25$$
V)

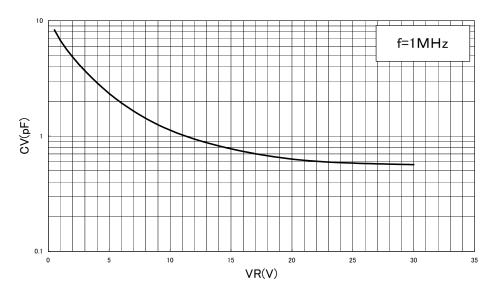
Marking



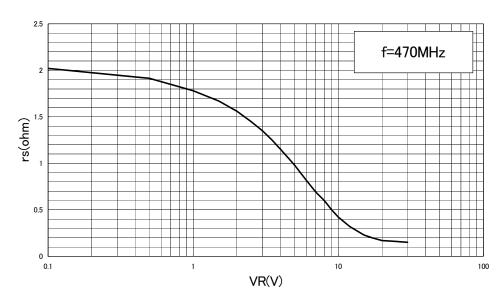
Unit: mm

TOSHIBA









RESTRICTIONS ON PRODUCT USE

20070701-EN GENERAL

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