

TOSHIBA Diode Silicon Epitaxial Planar Type

JDV2S10FS

VCO for the UHF band

Unit: mm

- High capacitance ratio: $C_{0.5V} / C_{2.5V} = 2.55$ (typ.)
- Low series resistance: $r_s = 0.35 \Omega$ (typ.)
- This device is suitable for use in a small-size tuner.

Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$)

Characteristic	Symbol	Rating	Unit
Reverse voltage	V_R	10	V
Junction temperature	T_j	150	$^\circ\text{C}$
Storage temperature range	T_{stg}	-55 to 150	$^\circ\text{C}$

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).

		JEDEC	—
		JEITA	—
		TOSHIBA	1-1L1A

Weight: 0.0006 g (typ.)

Electrical Characteristics ($T_a = 25^\circ\text{C}$)

Characteristic	Symbol	Test Condition	Min	Typ.	Max	Unit
Reverse voltage	V_R	$I_R = 1 \mu\text{A}$	10	—	—	V
Reverse current	I_R	$V_R = 10 \text{ V}$	—	—	3	nA
Capacitance	$C_{0.5V}$	$V_R = 0.5 \text{ V}, f = 1 \text{ MHz}$	7.3	—	8.4	pF
	$C_{2.5V}$	$V_R = 2.5 \text{ V}, f = 1 \text{ MHz}$	2.75	—	3.4	
Capacitance ratio	$C_{0.5V} / C_{2.5V}$	—	2.4	2.55	—	—
Series resistance	r_s	$V_R = 1 \text{ V}, f = 470 \text{ MHz}$	—	0.35	0.5	Ω

Note: Signal level when capacitance is measured: $V_{sig} = 500 \text{ mV}_{rms}$

Marking



Start of commercial production
2003-02

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