

TOSHIBA Diode Silicon Epitaxial Planar Type

JDV3S25CT

VCO for UHF Band Radio

Unit: mm

- High capacitance ratio: $C_{1V}/C_{4V} = 2.9$ (typ.)
- Low series resistance: $r_s = 0.47 \Omega$ (typ.)
- This device is suitable for use in small tuners.

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}	-55~150	$^\circ\text{C}$

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).

		1. Anode 2. NC 3. Cathode
JEDEC	—	
JEITA	—	
TOSHIBA	1-1S1A	

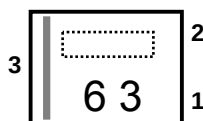
Weight: 0.00075 g (typ.)

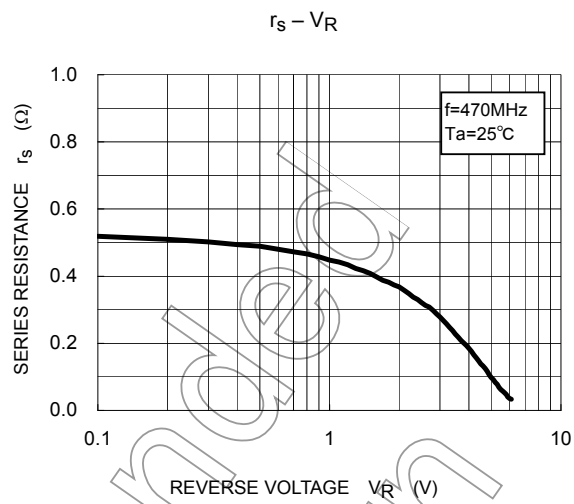
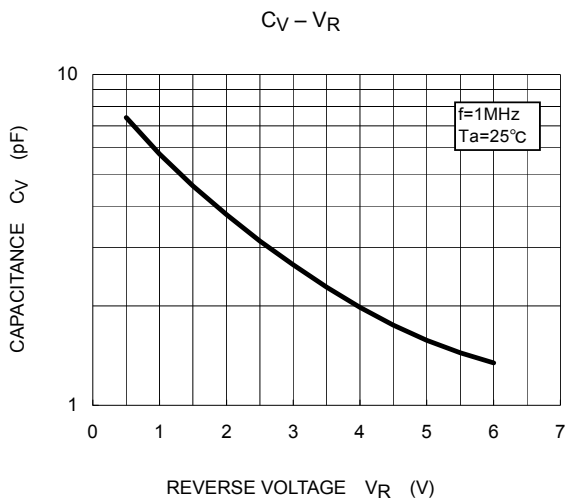
Electrical Characteristics ($T_a = 25^\circ\text{C}$)

Characteristic	Symbol	Test Condition	Min	Typ.	Max	Unit
Reverse voltage	V_R	$I_R = 1 \mu\text{A}$	10	—	—	V
Reverse current	I_R	$V_R = 5 \text{ V}$	—	—	1	nA
Capacitance	C_{1V}	$V_R = 1 \text{ V}, f = 1 \text{ MHz}$	5.62	—	5.99	pF
	C_{4V}	$V_R = 4 \text{ V}, f = 1 \text{ MHz}$	1.91	—	2.12	
Capacitance ratio	C_{1V}/C_{4V}	—	2.77	—	2.98	—
Series resistance	r_s	$V_R = 1 \text{ V}, f = 470 \text{ MHz}$	—	0.47	0.62	Ω

Note: Signal level when capacitance is measured. $V_{sig} = 100 \text{ mVrms}$

Marking





Not Recommended for New Design

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