

TOSHIBA Diode Silicon Epitaxial Planar Type

1SV314

VCO for UHF Band Radio

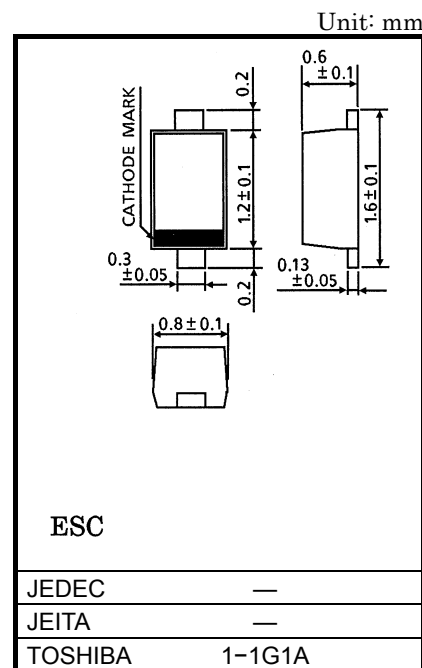
- High Capacitance Ratio : $C_{0.5\text{ V}} / C_{2.5\text{ V}} = 2.5$ (Typ.)
- Low Series Resistance : $r_s = 0.35\ \Omega$ (Typ.)
- Useful for Small Size Tuner

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

CHARACTERISTIC	SYMBOL	RATING	UNIT
Reverse Voltage	V_R	10	V
Junction Temperature	T_j	125	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	-55~125	$^\circ\text{C}$

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).

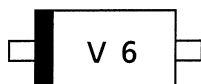


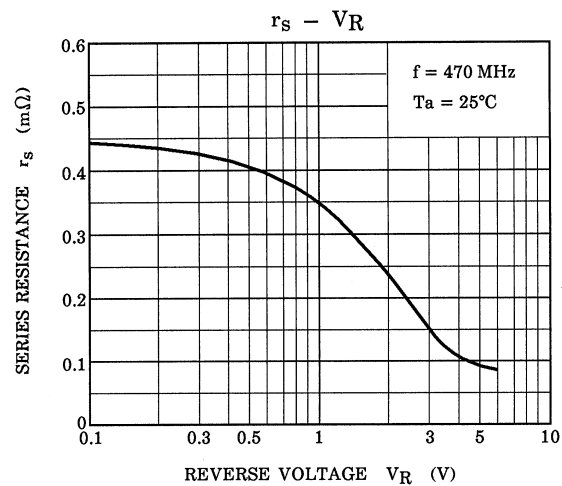
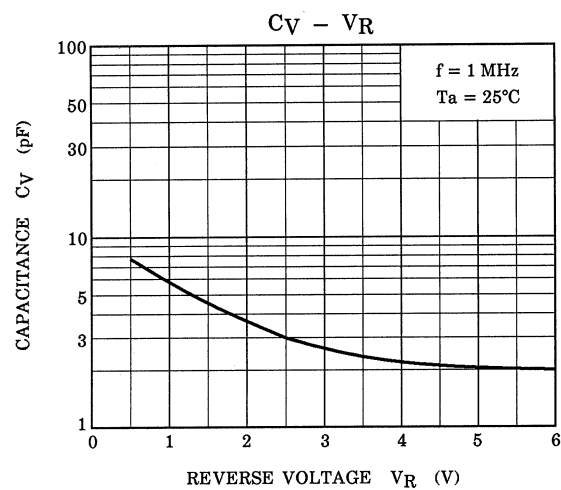
Weight: 0.0014g (typ.)

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	$C_{0.5\text{ V}}$	$V_R = 0.5\text{ V}, f = 1\text{ MHz}$	7.3	—	8.4	pF
Capacitance	$C_{2.5\text{ V}}$	$V_R = 2.5\text{ V}, f = 1\text{ MHz}$	2.75	—	3.4	pF
Capacitance Ratio	$C_{0.5\text{ V}} / C_{2.5\text{ V}}$	—	2.4	2.5	—	—
Series Resistance	r_s	$V_R = 1\text{ V}, f = 470\text{ MHz}$	—	0.35	0.45	Ω

Marking





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