

TOSHIBA Diode Silicon Epitaxial Planar Type

1SV314

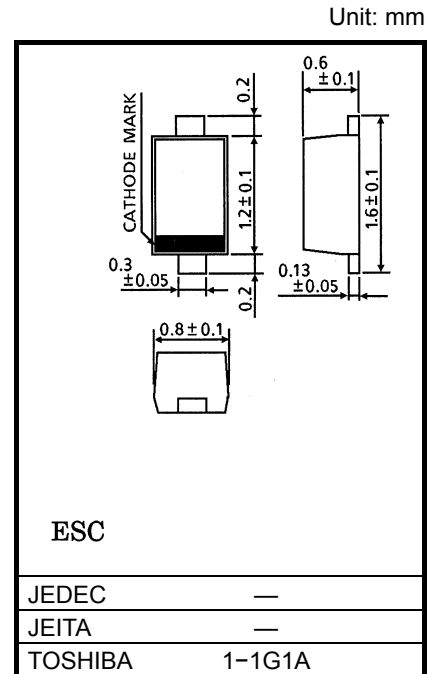
VCO for UHF Band Radio

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

Absolute Maximum Ratings (Ta = 25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Reverse Voltage	V_R	10	V
Junction Temperature	T_j	125	°C
Storage Temperature Range	T_{stg}	-55 to 125	°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).

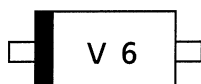


Weight: 0.0014g (typ.)

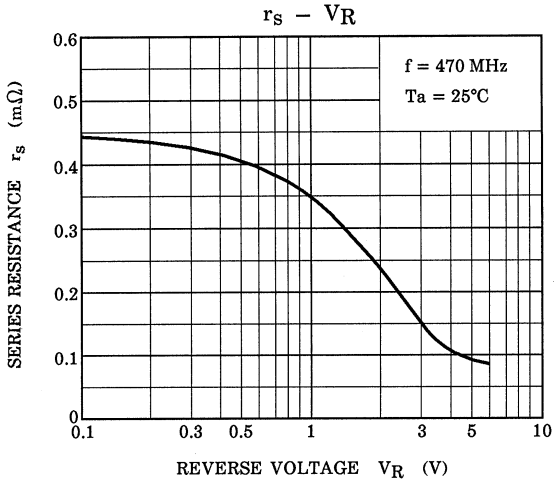
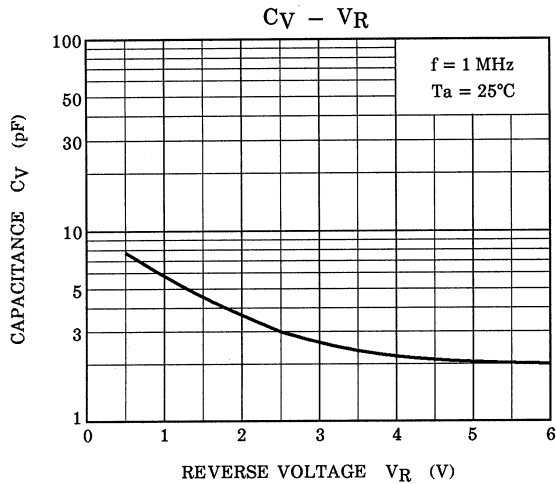
Electrical Characteristics (Ta = 25°C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN	TYP.	MAX	UNIT
Reverse Voltage	V_R	$I_R = 1 \mu A$	10	—	—	V
Reverse Current	I_R	$V_R = 10 V$	—	—	3	nA
Capacitance	$C_{0.5V}$	$V_R = 0.5 V, f = 1 MHz$	7.3	—	8.4	pF
Capacitance	$C_{2.5V}$	$V_R = 2.5 V, f = 1 MHz$	2.75	—	3.4	pF
Capacitance Ratio	$C_{0.5V} / C_{2.5V}$	—	2.4	2.5	—	—
Series Resistance	r_s	$V_R = 1 V, f = 470 MHz$	—	0.35	0.45	Ω

Marking



Start of commercial production
1998-06



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