#### TOSHIBA Diode Silicon Epitaxial Planar Type

# 1SV311

#### VCO for UHF Band Radio

TOSHIBA

- High capacitance ratio:  $C_1 V/C_4 V = 2.1$  (typ.)
- Low series resistance:  $r_s = 0.28 \Omega$  (typ.)
- Useful for small size tuner

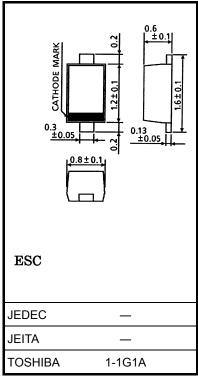
### Absolute Maximum Ratings (Ta = 25°C)

**Electrical Characteristics (Ta = 25°C)** 

Characteristics	Symbol	Rating	Unit
Reverse voltage	V <sub>R</sub>	10	V
Junction temperature	Tj	125	°C
Storage temperature range	T <sub>stg</sub>	-55~125	°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: 0.0014 g (typ.)

#### Characteristics Symbol **Test Condition** Min Тур. Max Unit V Reverse voltage $V_{\mathsf{R}}$ $I_R = 1 \ \mu A$ 10 \_\_\_\_ Reverse current V<sub>R</sub> = 10 V \_\_\_\_ 3 nA $I_R$ $V_R = 1 V, f = 1 MHz$ Capacitance 9.7 11.1 pF $C_{1 V}$ \_\_\_\_ Capacitance V<sub>R</sub> = 4 V, f = 1 MHz 4.45 5.45 pF $C_{4 V}$ Capacitance ratio C1 V/C4 V 2.1 1.8 0.28 Series resistance rs V<sub>R</sub> = 1 V, f = 470 MHz 04 Ω

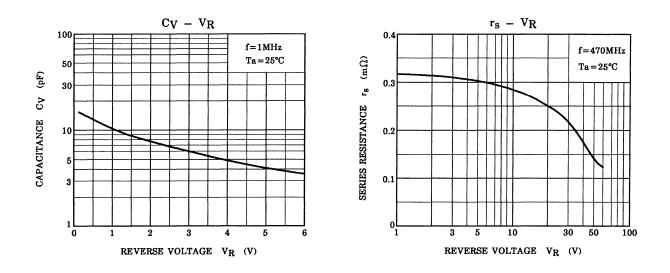
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Marking



Unit: mm

# **TOSHIBA**



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