TOSHIBA Diode Silicon Epitaxial Planar Type

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# JDV2S28FS

#### VCO for UHF Band Radio

• High capacitance ratio:  $C_{1V}/C_{3V} = 2.15$  (typ.)

Low series resistance: r<sub>S</sub> = 0.39 Ω (typ.)

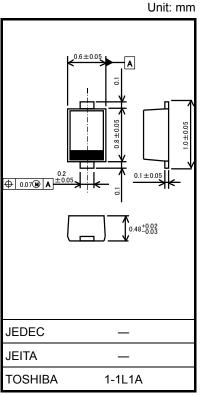
• This device is suitable for use in small tuners.

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

Characteristics	Symbol	Rating	Unit
Reverse voltage	$V_{R}$	10	V
Junction temperature	Tj	150	°C
Storage temperature range	T <sub>stg</sub>	<b>−55~150</b>	°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).



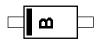
Weight: 0.0006 g (typ.)

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

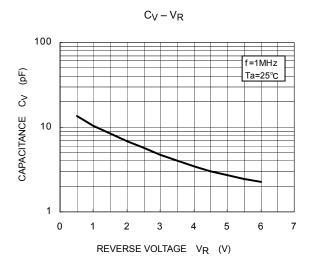
Characteristics	Symbol	Test Condition	Min	Тур.	Max	Unit
Reverse voltage	V <sub>R</sub>	$I_R = 1 \mu A$	10	_	_	V
Reverse current	I <sub>R</sub>	V <sub>R</sub> = 5 V	_	_	1	nA
Capacitance -	C <sub>1V</sub>	V <sub>R</sub> = 1 V, f = 1 MHz	10.2	_	10.83	- pF
	C <sub>3V</sub>	V <sub>R</sub> = 3 V, f = 1 MHz	4.66	_	5.05	
Capacitance ratio	C <sub>1V</sub> /C <sub>3V</sub>	_	2.08	_	2.22	_
Series resistance	r <sub>S</sub>	V <sub>R</sub> = 1 V, f = 470 MHz	_	0.39	0.51	Ω

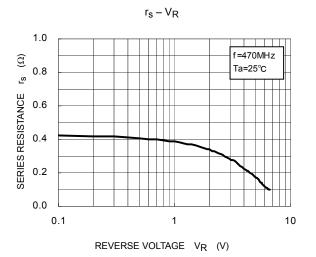
Note: Signal level when capacitance is measured.  $V_{sig} = 100 \text{mVrms}$ 

#### Marking



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#### **RESTRICTIONS ON PRODUCT USE**

20070701-EN GENERAL

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