

TOSHIBA Diode Silicon Epitaxial Schottky Barrier Type

## JDH2S01FS

## UHF Band Mixer

- Suitable for reducing set size through the use of a two-pin small package supporting high-density mounting

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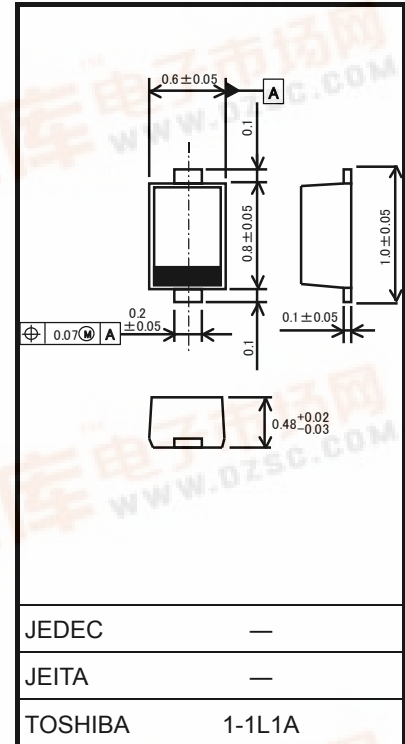
Absolute Maximum Ratings ( $T_a = 25^\circ\text{C}$ )

Characteristic	Symbol	Rating	Unit
Maximum (peak) reverse voltage	$V_R$	4	V
Forward current	$I_F$	25	mA
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).

Unit: mm



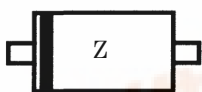
Weight: 0.0006 g (typ.)

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

Characteristic	Symbol	Test Condition	Min	Typ.	Max	Unit
Forward voltage	$V_F$	$I_F = 2 \text{ mA}$	—	0.25	—	V
Forward current	$I_F$	$V_F = 0.5 \text{ V}$	25	—	—	mA
Reverse current	$I_R$	$V_R = 0.5 \text{ V}$	—	—	25	$\mu\text{A}$
Capacitance	$C_T$	$V_R = 0.2 \text{ V}, f = 1 \text{ MHz}$	—	0.6	—	pF

Note: Signal level when capacitance is measured:  $V_{sig} = 20 \text{ mVrms}$

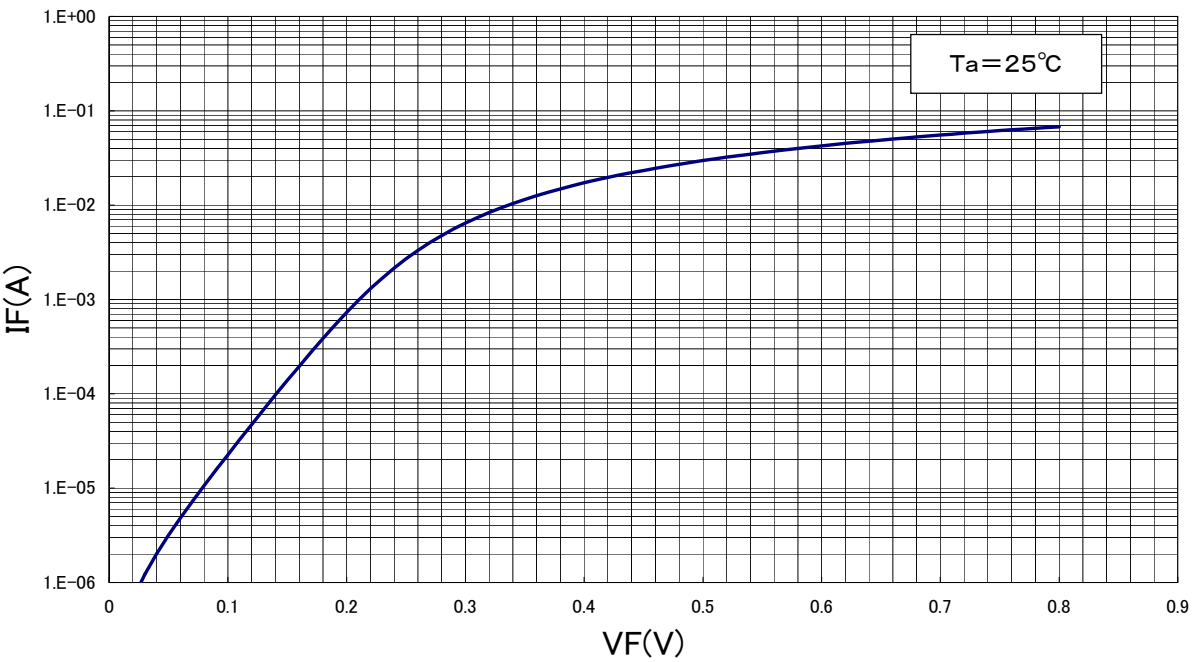
## Marking



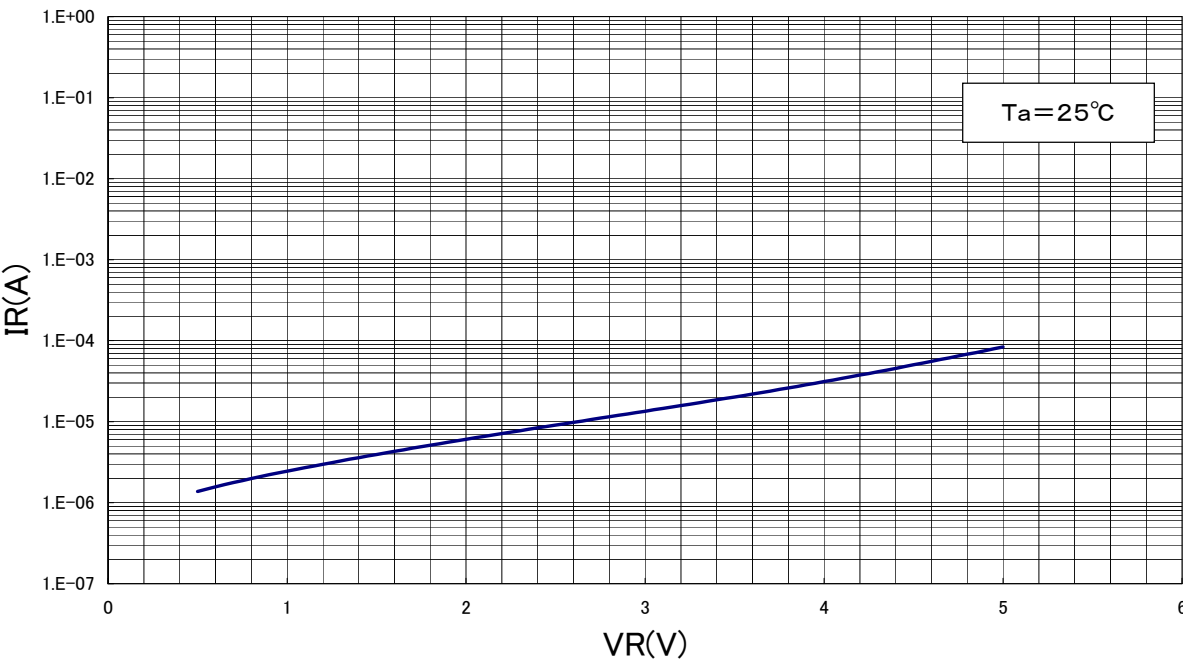
## Caution

This device is sensitive to electrostatic discharge. Operators should wear antistatic clothing, and containers and other objects that come into direct contact with the product should be made of antistatic materials.

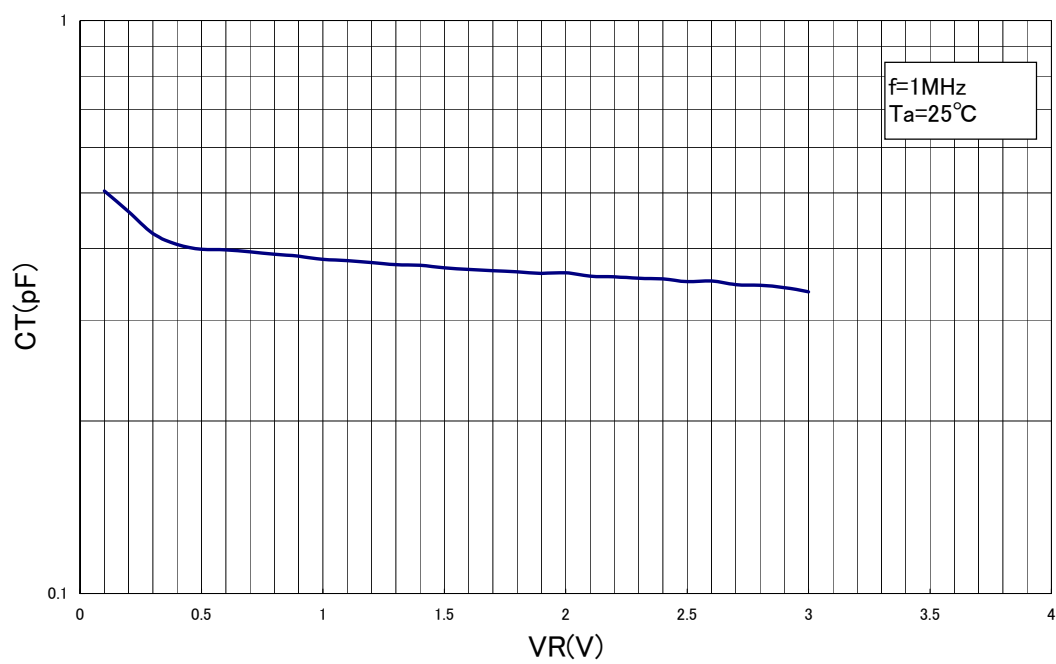
IF-VF



IR-VR



CT-VR



**RESTRICTIONS ON PRODUCT USE**

20070701-EN GENERAL

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- TOSHIBA is continually working to improve the quality and reliability of its products. Nevertheless, semiconductor devices in general can malfunction or fail due to their inherent electrical sensitivity and vulnerability to physical stress. It is the responsibility of the buyer, when utilizing TOSHIBA products, to comply with the standards of safety in making a safe design for the entire system, and to avoid situations in which a malfunction or failure of such TOSHIBA products could cause loss of human life, bodily injury or damage to property.  
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