

TOSHIBA Diode Silicon Epitaxial PIN Type

# JDP3C13U

## UHF~VHF Band RF Switch Applications

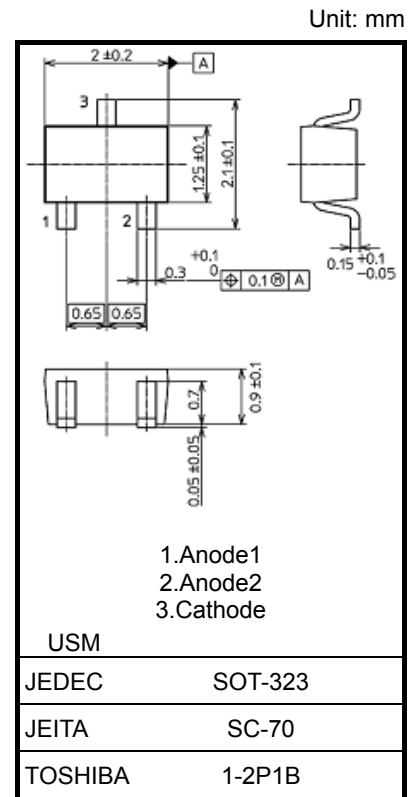
- Suitable for reducing set's size as a result from enabling high-density mounting due to 3-pin small packages.
- Low series resistance:  $r_s = 2.1 \Omega$  (typ.)
- Low capacitance:  $C_T = 0.24 \text{ pF}$  (typ.)

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

Characteristics	Symbol	Rating	Unit
Reverse voltage	$V_R$	30	V
Forward current	$I_F$	50	mA
Junction temperature	$T_j$	150	°C
Storage temperature range	$T_{stg}$	-55 to 150	°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).



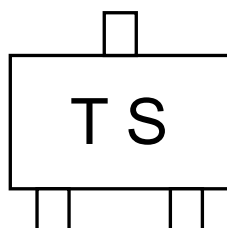
Weight: 6.3 mg (typ.)

## Electrical Characteristics (Ta = 25°C)

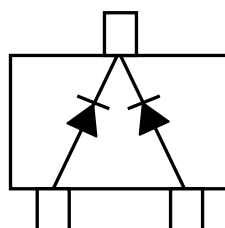
Characteristics	Symbol	Test Condition	Min	Typ.	Max	Unit
Reverse voltage	$V_R$	$I_R = 10 \mu\text{A}$	30	—	—	V
Reverse current	$I_R$	$V_R = 30 \text{ V}$	—	—	0.1	$\mu\text{A}$
Forward voltage	$V_F$	$I_F = 50 \text{ mA}$	—	0.91	1.0	V
Capacitance	$C_T$	$V_R = 1 \text{ V}, f = 1 \text{ MHz}$	—	0.24	0.44	pF
Series resistance	$r_s$	$I_F = 10 \text{ mA}, f = 100 \text{ MHz}$	—	2.1	2.8	$\Omega$

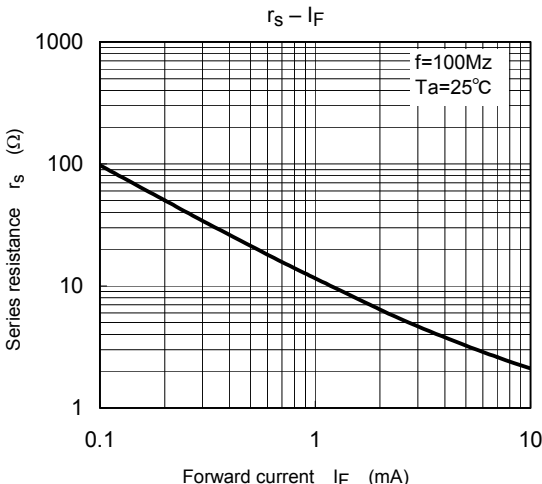
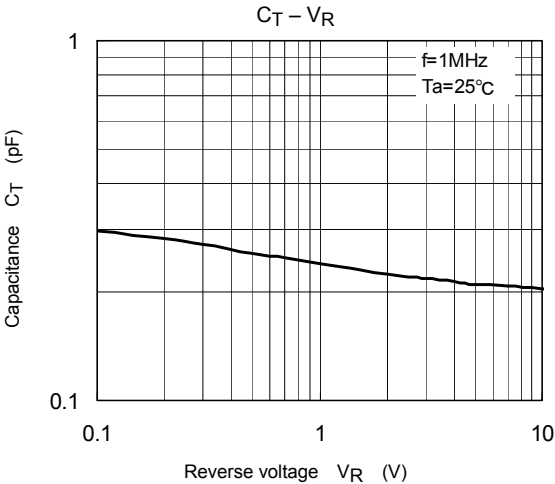
Note: Signal level when capacitance is measured.  $V_{sig} = 100 \text{ mVrms}$

## Marking



## Pin Assignment





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