

TOSHIBA Diode Silicon Epitaxial PIN Type

# JDP2S02ACT

## UHF~VHF Band RF Switch Applications

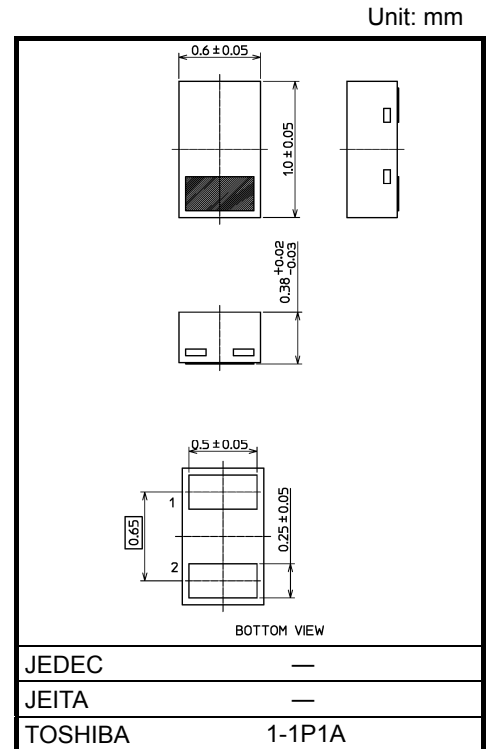
- Suitable for reducing set's size as a result from enabling high-density mounting due to 2-pin small packages.
- Low series resistance:  $r_s = 1.0 \Omega$  (typ.)
- Low capacitance:  $C_T = 0.3 \text{ pF}$  (typ.)

## 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).

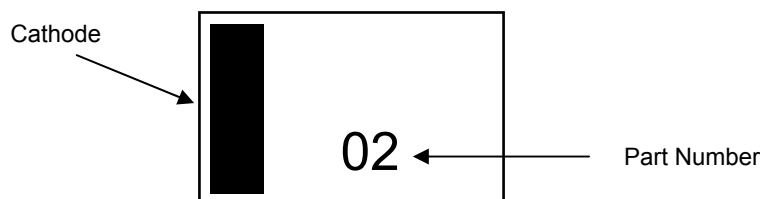


## Electrical Characteristics (Ta = 25°C)

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	$V_F$	$I_F = 50 \text{ mA}$	—	0.9	0.94	V
Capacitance(Note2)	$C_T$	$V_R = 1 \text{ V}, f = 1 \text{ MHz}$	—	0.3	0.4	pF
Series resistance	$r_s$	$I_F = 10 \text{ mA}, f = 100 \text{ MHz}$	—	1.0	1.5	$\Omega$

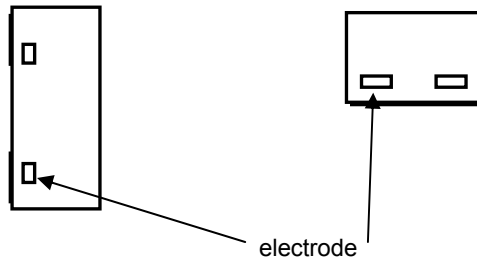
Note1: Signal level when capacitance is measured.  $V_{sig} = 100 \text{ mVrms}$

## Marking

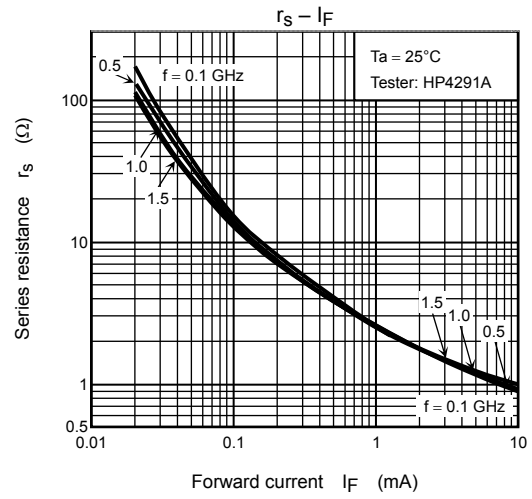
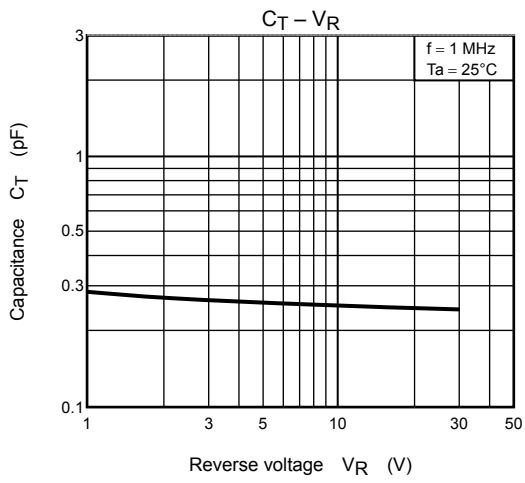


Start of commercial production  
2003-11

Note2: This package has 2 exposed electrodes on each side because of the manufacturing process.  
Please be careful about the handling enough.



## Typical Performance Curves (Ta = 25°C)



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