

TOSHIBA Diode Silicon Epitaxial PIN Type

JDP2S05FS

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: $r_s = 1.5 \Omega$ (typ.)
- Low capacitance: $C_T = 0.32 \text{ pF}$ (typ.)

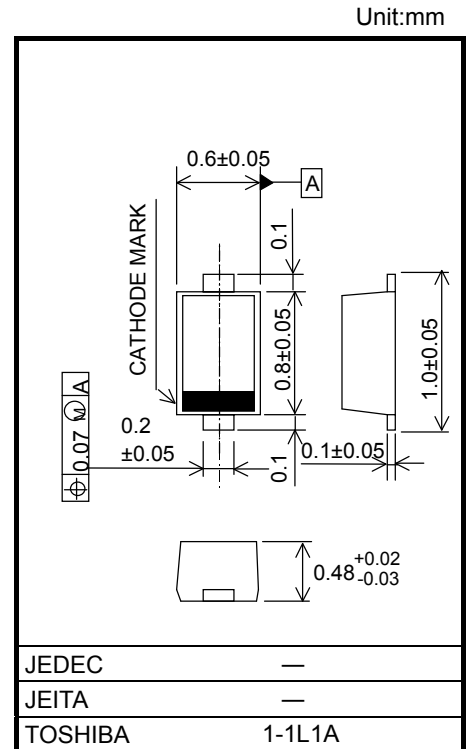
Absolute Maximum Ratings (Ta = 25°C)

Characteristics	Symbol	Rating	Unit
Reverse voltage	V_R	20	V
Forward current	I_F	50	mA
Power dissipation(Note:1)	P_d	150	mW
Junction temperature	T_j	150	°C
Storage temperature range	T_{stg}	-55~150	°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).

Note 1: When mounted on glass epoxy board
 board size : 20mm × 20mm × 1.6mmt
 Cu foot area : 4mm × 4mm × 0.035mmt

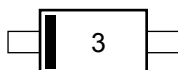


Electrical Characteristics (Ta = 25°C)

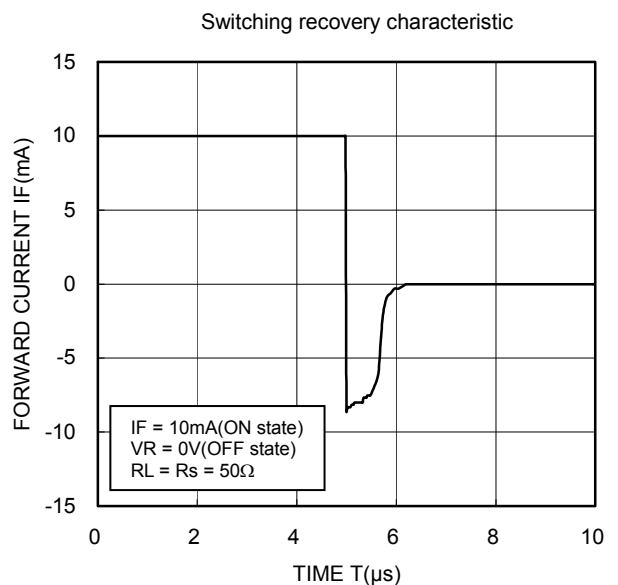
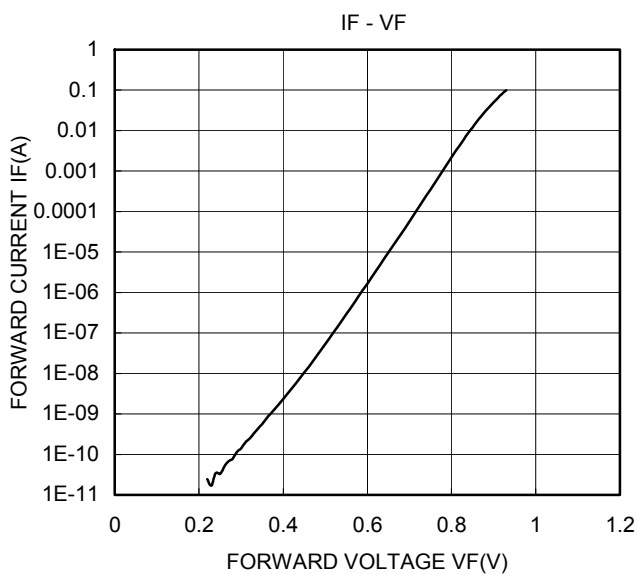
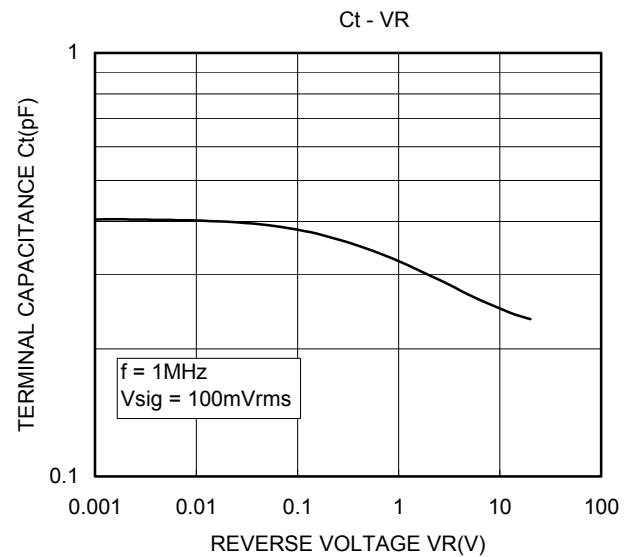
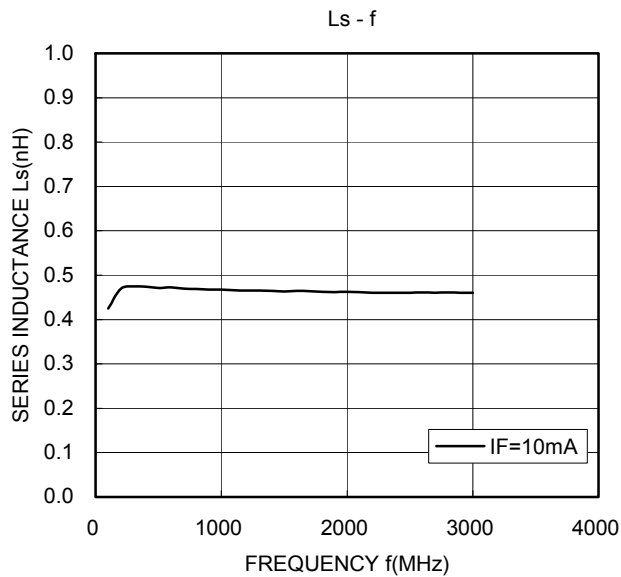
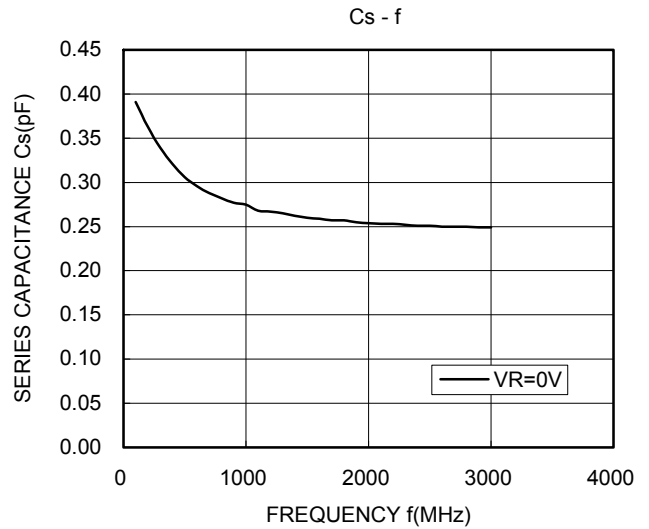
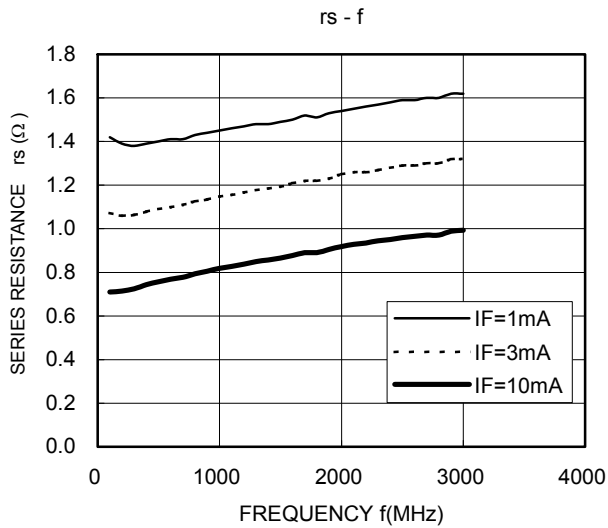
Characteristics	Symbol	Test Condition	Min	Typ.	Max	Unit
Reverse voltage	V_R	$I_R = 0.1 \mu A$	20	—	—	V
Reverse current	I_R	$V_R = 20 \text{ V}$	—	—	0.1	μA
Forward voltage	V_F	$I_F = 50 \text{ mA}$	—	—	0.94	V
Capacitance(Note2)	C_T	$V_R = 1 \text{ V}, f = 1 \text{ MHz}$	0.21	0.32	0.42	pF
Series resistance	r_s	$I_F = 1 \text{ mA}, f = 100 \text{ MHz}$	—	1.5	2.2	Ω

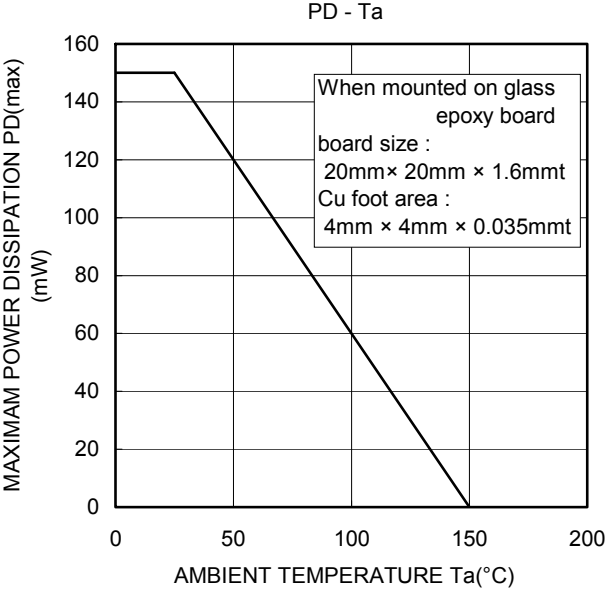
Note2: Signal level when capacitance is measured. $V_{sig} = 100 \text{ mVrms}$

Marking



TYPICAL PERFORMANCE CURVES (Ta = 25°C)





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20070701-EN GENERAL

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