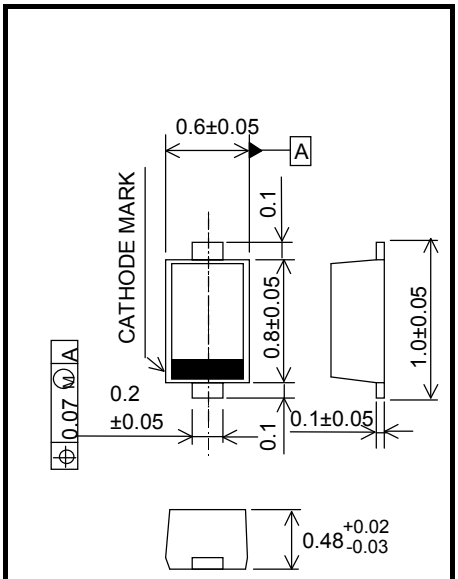
TOSHIBA Diode Silicon Epitaxial PIN Type

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 Ω (typ.)
- Low capacitance: C_T = 0.32 pF (typ.)

Unit:mm



JEDEC	—
JEITA	—
TOSHIBA	1-1L1A

Weight: 0.0006 g(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)	Pd	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).

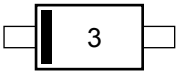
Note 1: When mounted on glass epoxy board
board size : 20mm × 20mm × 1.6mmt
Cu foot area : 4mm × 4mm × 0.035mmt

Electrical Characteristics (Ta = 25°C)

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

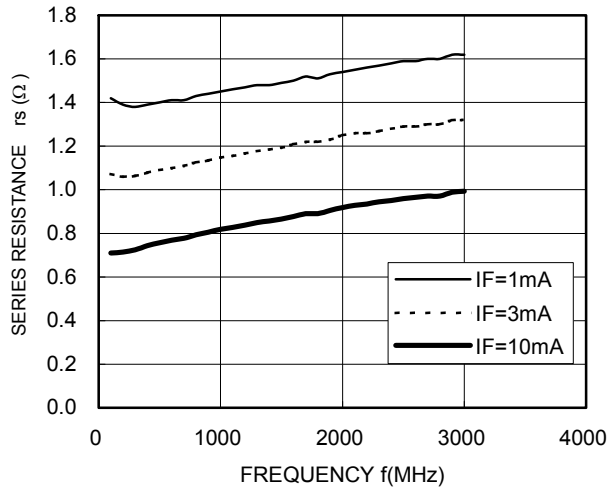
Note2: Signal level when capacitance is measured. V_{sig} = 100 mVrms

Marking

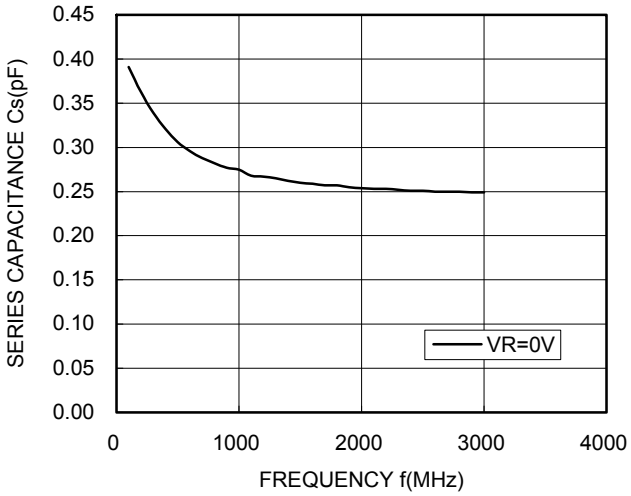


TYPICAL PERFORMANCE CURVES (Ta = 25°C)

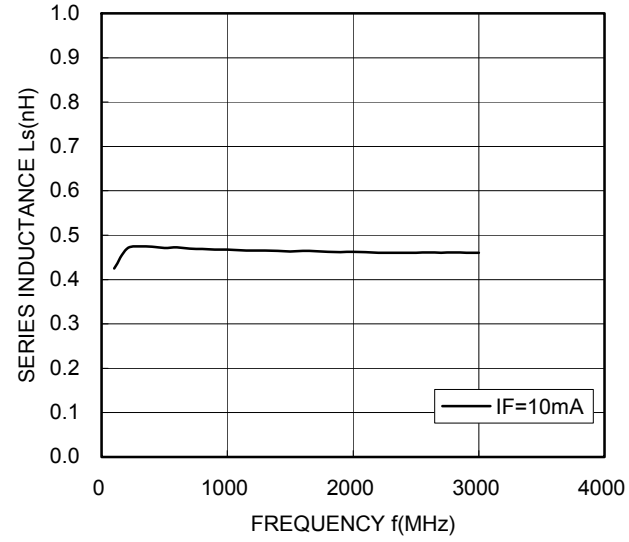
rs - f



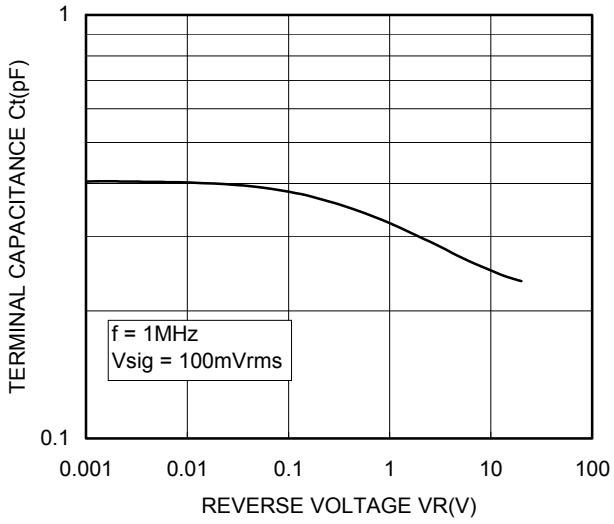
Cs - f



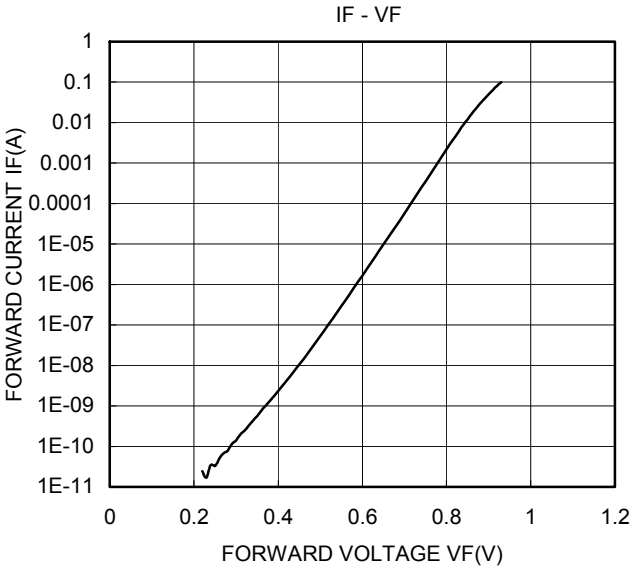
Ls - f



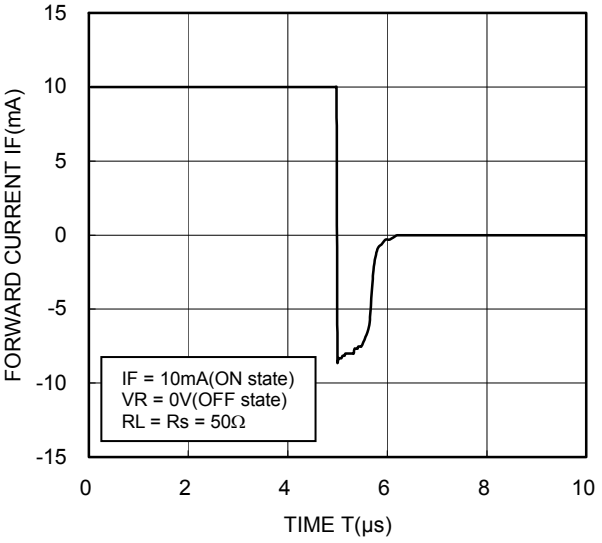
Ct - VR

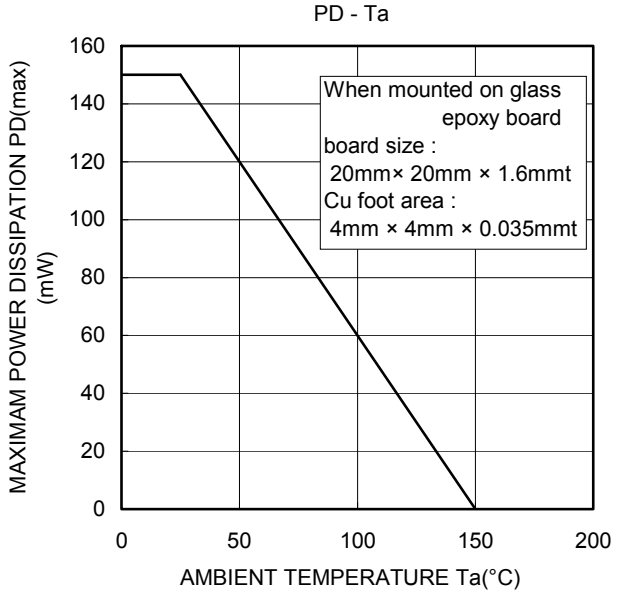


IF - VF



Switching recovery characteristic




PD - Ta
MAXIMAM POWER DISSIPATION PD(max) (mW)
160
140
120
100
80
60
40
20
0
0
50
100
150
200
AMBIENT TEMPERATURE Ta(°C)
When mounted on glass epoxy board
board size :
20mm× 20mm × 1.6mmt
Cu foot area :
4mm × 4mm × 0.035mmt

RESTRICTIONS ON PRODUCT USE

20070701-EN GENERAL

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