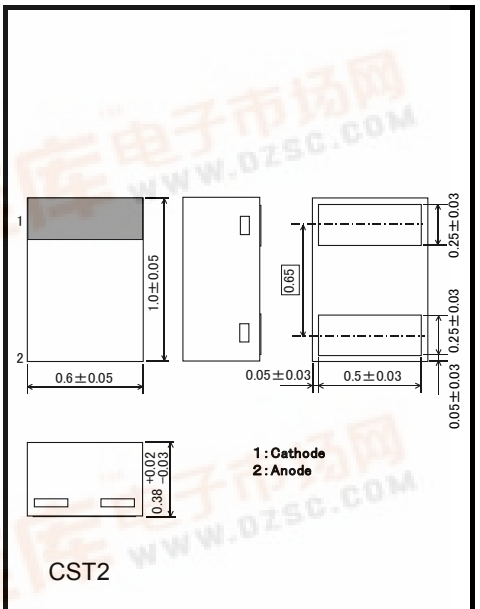
TOSHIBA Diode Silicon Epitaxial PIN Type

JDP2S05CT

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



CST2

JEDEC	—
JEITA	—
TOSHIBA	1-1P1A

Weight: 0.00077 g(Typ.)

Absolute Maximum Ratings (Ta = 25°C)

Characteristics	Symbol	Rating	Unit
Reverse voltage	V_R	20	V
Forward current	I_F	50	mA
Junction temperature	T_j	150	°C
Storage temperature range	T_{stg}	−55~150	°C

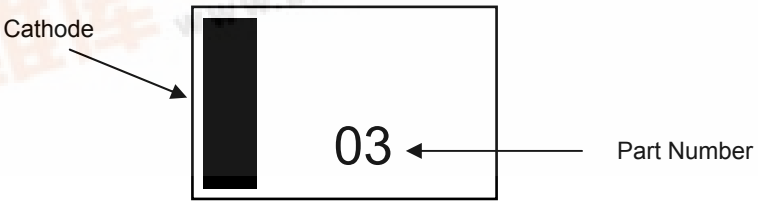
Note: Using continuously under heavy loads (e.g. the application of high temperature/current/voltage and the significant change in temperature, etc.) may cause this product to decrease in the reliability significantly even if the operating conditions (i.e. operating temperature/current/voltage, etc.) 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).

Electrical Characteristics (Ta = 25°C)

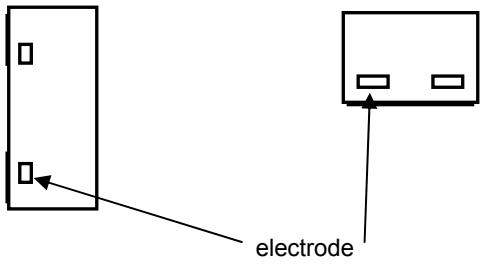
Characteristics	Symbol	Test Condition	Min	Typ.	Max	Unit
Reverse voltage	V_R	I_R = 0.1 μA	20	—	—	V
Reverse current	I_R	V_R = 20 V	—	—	0.1	μA
Forward voltage	V_F	I_F = 50 mA	—	—	0.94	V
Capacitance(Note2)	C_T	V_R = 1 V, f = 1 MHz	0.21	0.32	0.42	pF
Series resistance	r_s	I_F = 1 mA, f = 100 MHz	—	1.5	2.2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

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

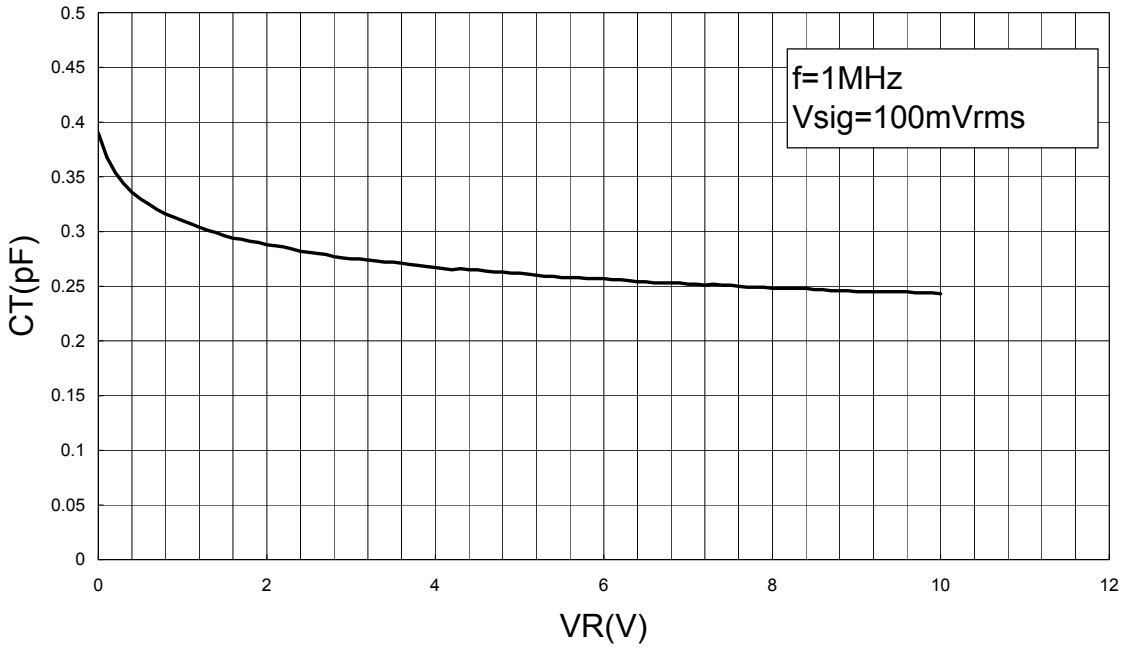
Marking

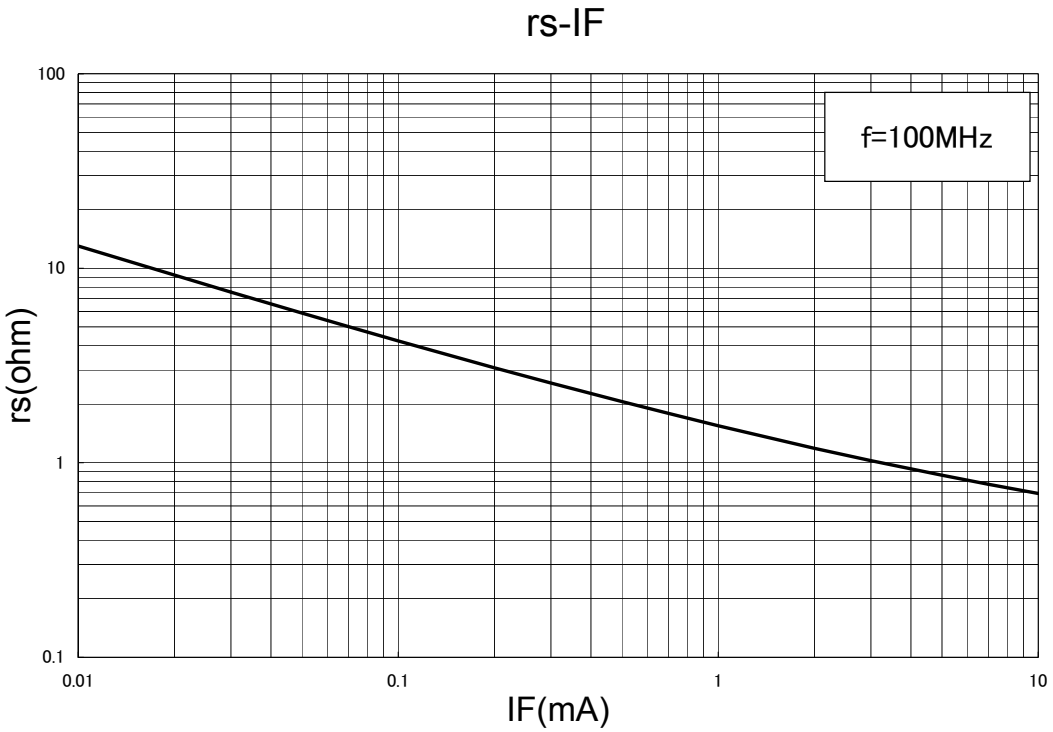


Note2: This package has 2 exposed electrodes on each side because of the manufacturing process



CT-VR




rs-IF
f=100MHz
100
10
1
0.1
rs(ohm)
0.01
0.1
1
10
IF(mA)

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20070701-EN GENERAL

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