TOSHIBA Diode Silicon Epitaxial PIN Type

# JDP2S12CR

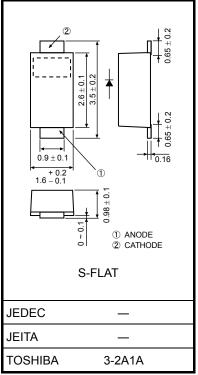
#### UHF~VHF Band RF Switch Applications

- Suitable for high-density board assembly due to the use of a small surface-mount package, S-FLAT
- Low series resistance:  $r_8 = 0.4 \Omega$  (typ.)
- Low capacitance:  $C_T = 1.0 \text{ pF}$  (typ.)

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

Characteristics	Symbol	Rating	Unit
Reverse voltage	V <sub>R</sub>	180	V
Forward current	١ <sub>F</sub>	1	А
Power dissipation	P <sub>D</sub> (Note 1)	1	W
Junction temperature	Tj	175	°C
Storage temperature range	T <sub>stg</sub>	-55 to 175	°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



Weight: 13 mg

reliability data (i.e. reliability test report and estimated failure rate, etc). Note 1:Tc = 25°C (When mounted on a 110.0mm×30.0mm×1.0mm glass epoxy PCB)

#### Electrical Characteristics (Ta = 25°C)

Characteristics	Symbol	Test Condition	Min	Тур.	Max	Unit
Reverse current	I <sub>R</sub>	V <sub>R</sub> = 50 V	_		10	μA
Forward voltage	VF	I <sub>F</sub> = 50 mA	_	0.8	1.0	V
Capacitance	CT	V <sub>R</sub> = 40 V, f = 1 MHz	_	1.0	1.3	pF
Series resistance	r <sub>s</sub>	I <sub>F</sub> = 10 mA, f = 100 MHz	_	0.4	0.7	Ω

Note: Signal level when capacitance is measured.  $V_{sig}$  = 100 mV<sub>rms</sub>

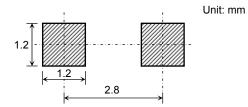
#### Marking

Abbreviation Code	Part No.
P1	JDP2S12CR

Unit: mm

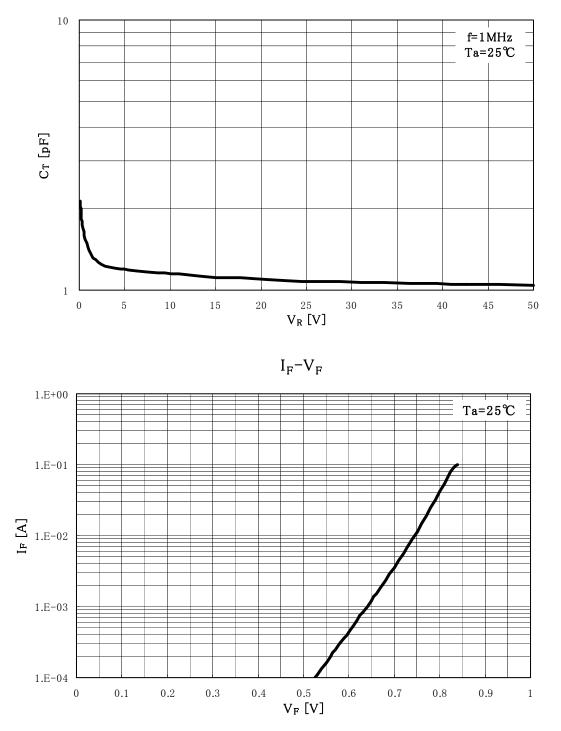
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### Standard Soldering Pad

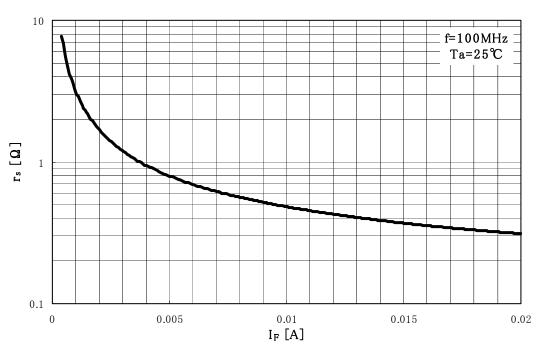


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 $C_T - V_R$ 







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