

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: $r_s = 0.4 \Omega$ (typ.)
- Low capacitance: $C_T = 1.0 \text{ pF}$ (typ.)

Absolute Maximum Ratings (Ta = 25°C)

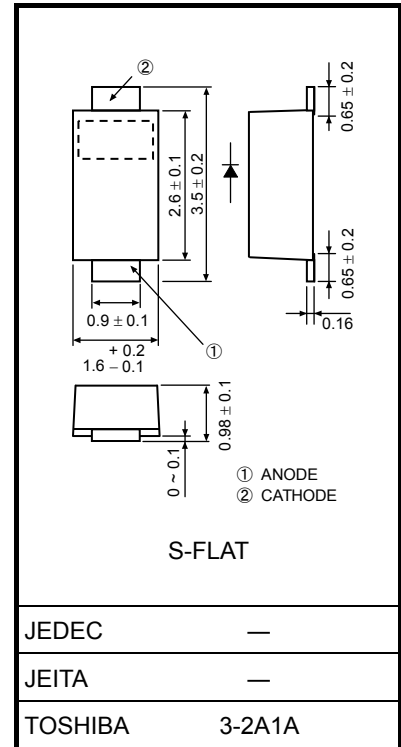
Characteristics	Symbol	Rating	Unit
Reverse voltage	V_R	180	V
Forward current	I_F	1	A
Power dissipation	P_D (Note 1)	1	W
Junction temperature	T_j	175	°C
Storage temperature range	T_{stg}	-55 to 175	°C

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 reliability data (i.e. reliability test report and estimated failure rate, etc).

Note 1: $T_c = 25^\circ\text{C}$ (When mounted on a 110.0mm×30.0mm×1.0mm glass epoxy PCB)

Unit: mm



Weight: 13 mg

Electrical Characteristics (Ta = 25°C)

Characteristics	Symbol	Test Condition	Min	Typ.	Max	Unit
Reverse current	I_R	$V_R = 50 \text{ V}$	—	—	10	μA
Forward voltage	V_F	$I_F = 50 \text{ mA}$	—	0.8	1.0	V
Capacitance	C_T	$V_R = 40 \text{ V}, f = 1 \text{ MHz}$	—	1.0	1.3	pF
Series resistance	r_s	$I_F = 10 \text{ mA}, f = 100 \text{ MHz}$	—	0.4	0.7	Ω

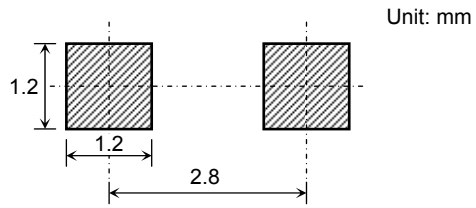
Note: Signal level when capacitance is measured. $V_{sig} = 100 \text{ mV}_{rms}$

Marking

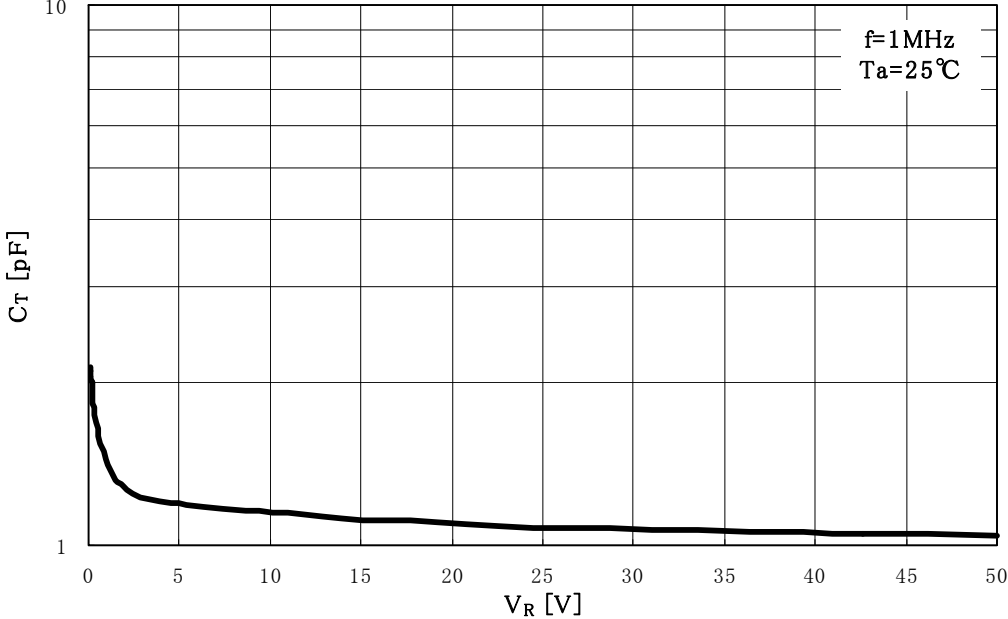
Abbreviation Code	Part No.
P1	JDP2S12CR

Start of commercial production
2010-03

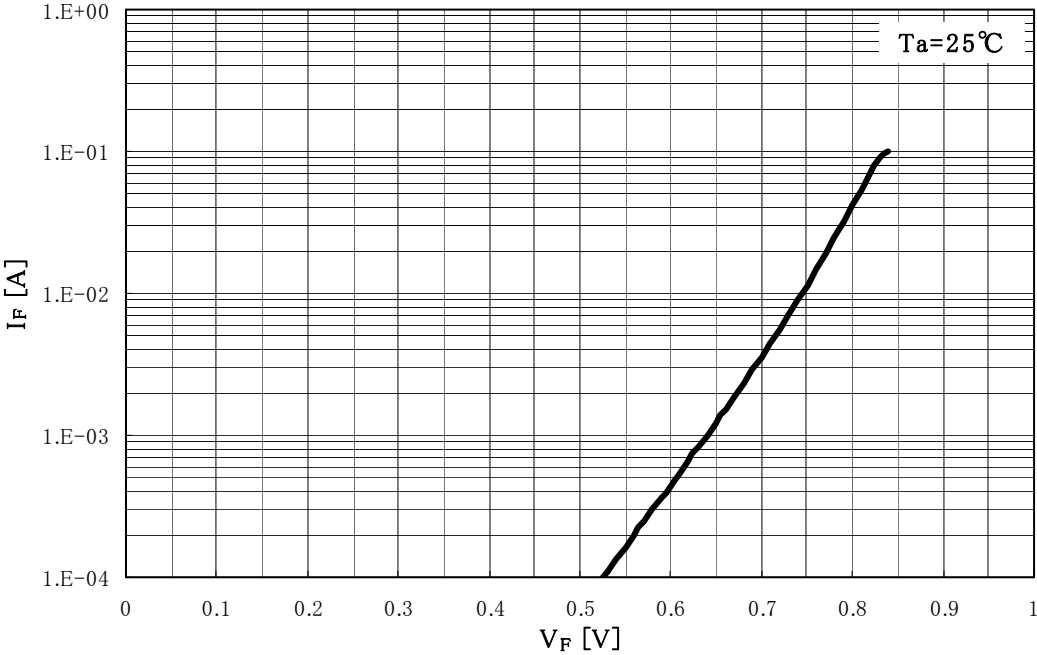
Standard Soldering Pad

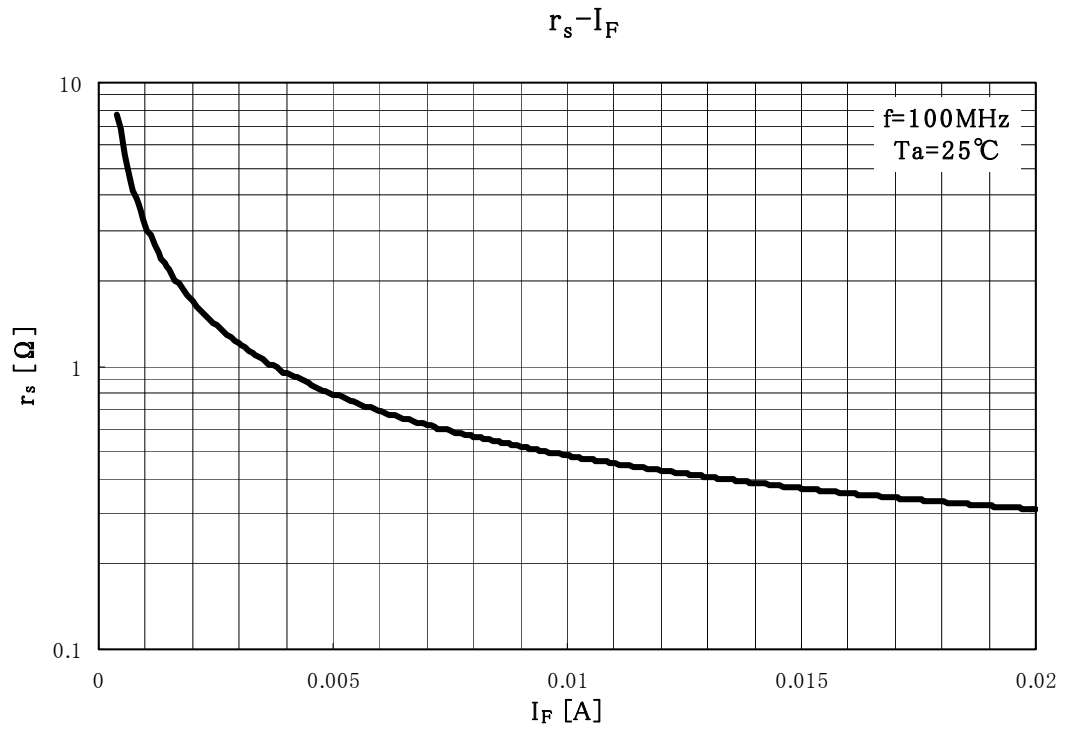


C_T-V_R



I_F-V_F





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