

NJ1800D Process

Silicon Junction Field-Effect Transistor

• Ultra Low-Noise Pre-Amplifier

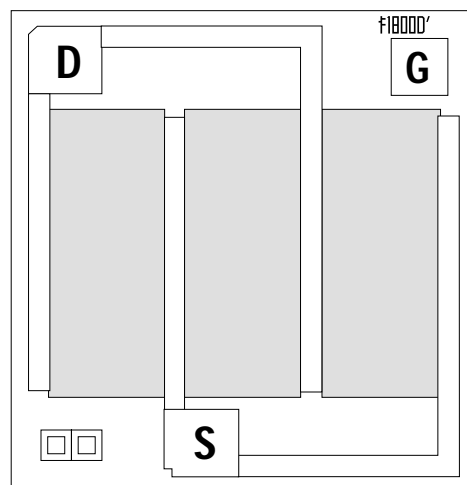
Absolute maximum ratings at TA = 25 °C

Gate Current, I _G	10 mA
Operating Junction Temperature, T _J	+150°C
Storage Temperature, T _S	- 65°C to +175°C

Devices in this Databook based on the NJ1800D Process.

Datasheet

U290, U291



Die Size = 0.052" X 0.052"
 All Bond Pads ≥ 0.004" Sq.
 Substrate is also Gate.

At 25°C free air temperature:

Static Electrical Characteristics

		NJ1800D Process						
		Min	Typ	Max	Unit	Test Conditions		
Gate Source Breakdown Voltage	V _{(BR)GSS}	- 20	- 30		V	I _G = - 1 μA, V _{DS} = 0V		
Reverse Gate Leakage Current	I _{GSS}		- 30	- 100	pA	V _{GS} = - 10V, V _{DS} = 0V		
Drain Saturation Current (Pulsed)	I _{DSS}	50		1000	mA	V _{DS} = 10V, V _{GS} = 0V		
Gate Source Cutoff Voltage	V _{GS(OFF)}	- 0.1		- 7	V	V _{DS} = 10V, I _D = 1 nA		

Dynamic Electrical Characteristics

Forward Transconductance (Pulsed)	g _{fs}		350		mS	V _{DS} = 10V, V _{GS} = 0V	f = 1 kHz
Drain Source ON Resistance	r _{ds(on)}	2		7	Ω	I _D = 1 mA, V _{GS} = 0V	f = 1 kHz
Input Capacitance	C _{iss}		100		pF	V _{DS} = 10V, V _{GS} = 0V	f = 1 MHz
Feedback Capacitance	C _{rss}		50		pF	V _{DS} = 10V, V _{GS} = 0V	f = 1 MHz



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