

# NJ30L Process

## Silicon Junction Field-Effect Transistor

- Low-Noise, High Gain Amplifier

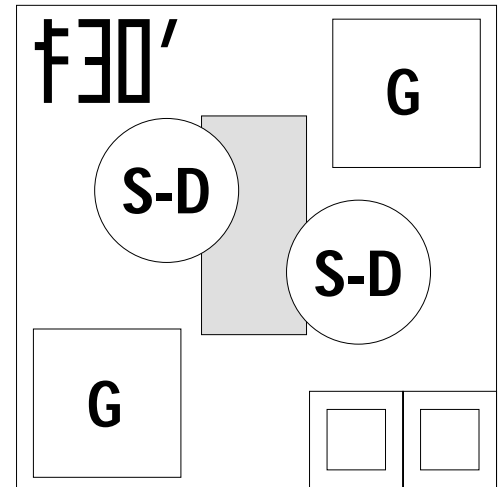
**Absolute maximum ratings at TA = 25 °C**

Gate Current, I <sub>G</sub>	10 mA
Operating Junction Temperature, T <sub>J</sub>	+150°C
Storage Temperature, T <sub>S</sub>	- 65°C to +175°C

**Devices in this Databook based on the NJ30L Process.**

**Datasheet**

- 2N5911, 2N5912
- IFN5911, IFN5912
- SMP5911
- SMP5912



Die Size = 0.016" X 0.016"  
 All Round Bond Pads = 0.0028"  
 All Square Bond Pads = 0.004"  
 Substrate is also Gate.

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**At 25°C free air temperature:**

**Static Electrical Characteristics**

		NJ30L Process					
		Min	Typ	Max	Unit	Test Conditions	
Gate Source Breakdown Voltage	V <sub>(BR)GSS</sub>	- 25	- 30		V	I <sub>G</sub> = - 1 μA, V <sub>DS</sub> = 0V	
Reverse Gate Leakage Current	I <sub>GSS</sub>		- 10	- 100	pA	V <sub>GS</sub> = - 15V, V <sub>DS</sub> = 0V	
Drain Saturation Current (Pulsed)	I <sub>DSS</sub>	2		40	mA	V <sub>DS</sub> = 15V, V <sub>GS</sub> = 0V	
Gate Source Cutoff Voltage	V <sub>GS(OFF)</sub>	- 0.5		- 6	V	V <sub>DS</sub> = 15V, I <sub>D</sub> = 1 nA	

**Dynamic Electrical Characteristics**

Forward Transconductance	g <sub>fs</sub>		8		mS	V <sub>DS</sub> = 15V, V <sub>GS</sub> = 0V	f = 1 kHz
Input Capacitance	C <sub>iss</sub>		5		pF	V <sub>DS</sub> = 15V, V <sub>GS</sub> = 0V	f = 1 MHz
Feedback Capacitance	C <sub>rss</sub>		1.5		pF	V <sub>DS</sub> = 15V, V <sub>GS</sub> = 0V	f = 1 MHz
Equivalent Noise Voltage	e <sub>N</sub>		2.5		nV/√HZ	V <sub>DS</sub> = 10V, I <sub>D</sub> = 5 mA	f = 1 kHz

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