

## NJ30L Process

### Silicon Junction Field-Effect Transistor

#### • Low-Noise, High Gain Amplifier

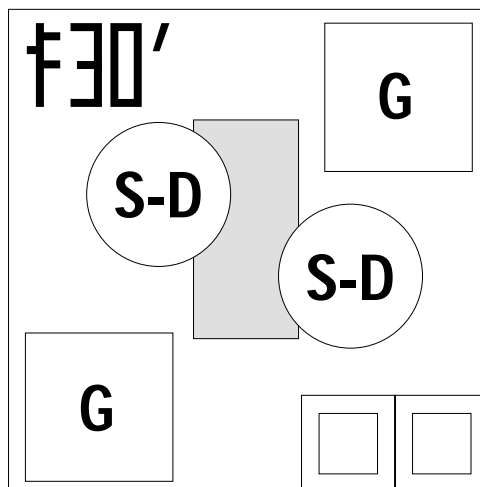
#### Absolute maximum ratings at TA = 25 °C

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.

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



1000 N. Shiloh Road, Garland, TX 75042  
 (972) 487-1287 FAX (972) 276-3375

[www.interfet.com](http://www.interfet.com)

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