

NJ30 Process

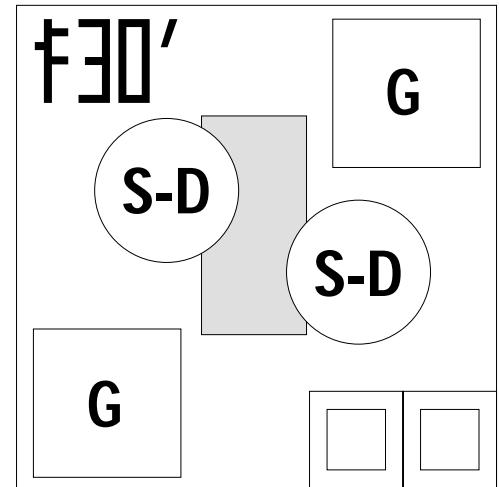
Silicon Junction Field-Effect Transistor

- Low-Noise, High Gain 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

This process available for customer-specified applications.



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

		NJ30 Process						
		Min	Typ	Max	Unit	Test Conditions		
Gate Source Breakdown Voltage	V _{(BR)GSS}	- 30	- 40		V	I _G = - 1 μA, V _{DS} = 0V		
Reverse Gate Leakage Current	I _{GSS}		- 10	- 100	pA	V _{GS} = - 20V, V _{DS} = 0V		
Drain Saturation Current (Pulsed)	I _{DSS}	2		22	mA	V _{DS} = 15V, V _{GS} = 0V		
Gate Source Cutoff Voltage	V _{GS(OFF)}	- 1		- 5	V	V _{DS} = 15V, I _D = 1 nA		

Dynamic Electrical Characteristics

Forward Transconductance	g _{fs}		6		mS	V _{DS} = 15V, V _{GS} = 0V	f = 1 kHz
Input Capacitance	C _{iss}		4.3	5	pF	V _{DS} = 15V, V _{GS} = 0V	f = 1 MHz
Feedback Capacitance	C _{rss}		1	1.5	pF	V _{DS} = 15V, V _{GS} = 0V	f = 1 MHz
Equivalent Noise Voltage	e _N		4		nV/√HZ	V _{DS} = 10V, I _D = 5 mA	f = 1 kHz