

NJ30 Process

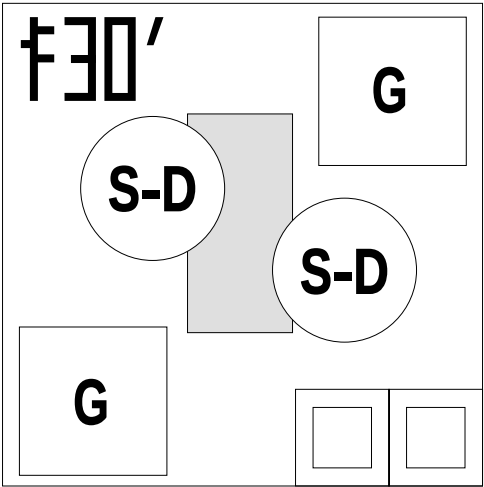
Silicon Junction Field-Effect Transistor

• Low-Noise, High Gain Amplifier

Absolute maximum ratings at TA = 25 °C

Gate Current, Ig	10 mA
Operating Junction Temperature, Tj	+150°C
Storage Temperature, Ts	– 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.

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} = ØV	
Reverse Gate Leakage Current	I _{GSS}		– 10	– 100	pA	V _{GS} = – 20V, V _{DS} = ØV	
Drain Saturation Current (Pulsed)	I _{DSS}	2		22	mA	V _{DS} = 15V, V _{GS} = ØV	
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} = ØV	f = 1 kHz
Input Capacitance	C _{iss}		4.3	5	pF	V _{DS} = 15V, V _{GS} = ØV	f = 1 MHz
Feedback Capacitance	C _{rss}		1	1.5	pF	V _{DS} = 15V, V _{GS} = ØV	f = 1 MHz
Equivalent Noise Voltage	e _N		4		nV/√HZ	V _{DS} = 10V, I _D = 5 mA	f = 1 kHz