

NJ14AL Process

Silicon Junction Field-Effect Transistor

- Low-Noise, High Gain Amplifier
- Rf AMP to 1.0 Ghz

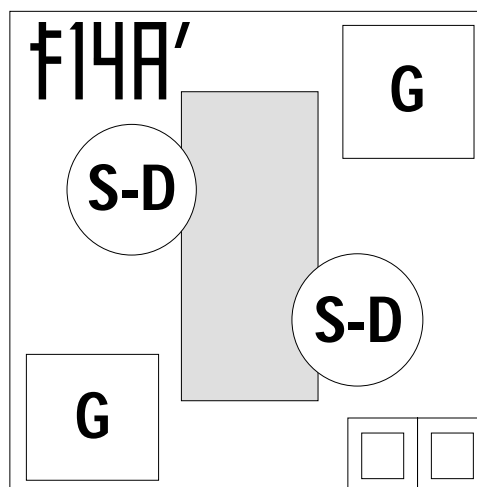
Absolute maximum ratings at TA = 25 °C

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 NJ14AL Process.

Datasheet

IF140, IF140A
IF142



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

		NJ14AL Process					
		Min	Typ	Max	Unit	Test Conditions	
Gate Source Breakdown Voltage	V _{(BR)GSS}	- 15	- 22		V	I _G = - 1 μA, V _{DS} = 0V	
Gate Reverse Current	I _{GSS}		- 2.0	- 100	pA	V _{GS} = - 10V, V _{DS} = 0V	
Gate Source Cutoff Voltage	V _{GS(OFF)}	- 0.5		- 7	V	V _{GS} = 10V, I _D = 1 nA	
Drain Saturation Current (Pulsed)	I _{DSS}	0.5	10	20	mA	V _{DS} = 10V, V _{GS} = 0V	

Dynamic Electrical Characteristics

Common Source Forward Transconductance	g _{fs}		5.5		mS	V _{DS} = 10V, V _{GS} = 0V	f = 1 kHz
Common Source Input Capacitance	C _{iss}		2.3		pF	V _{DS} = 15V, V _{GS} = 0V	f = 1 MHz
Common Source Reverse Transfer Capacitance	C _{rSS}		0.5		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



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