

## NJ42 Process

### Silicon Junction Field-Effect Transistor

- General Purpose Amplifier
- High Breakdown Voltage

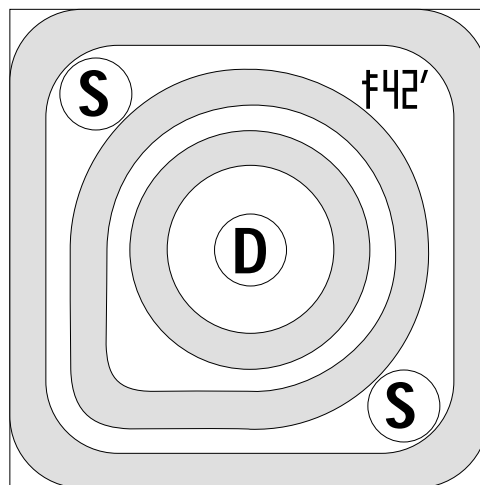
#### Absolute maximum ratings at TA = 25 °C

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 NJ42 Process.

#### Datasheet

2N6449, 2N6450  
IFN6449, IFN6450



Die Size = 0.032" X 0.032"  
All Bond Pads = 0.004", Dia.  
Substrate is also Gate.

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At 25°C free air temperature:

#### Static Electrical Characteristics

		NJ42 Process						
		Min	Typ	Max	Unit	Test Conditions		
Gate Source Breakdown Voltage	V <sub>(BR)GSS</sub>	- 300	- 400		V	I <sub>G</sub> = 1 μA, V <sub>DS</sub> = 0V		
Reverse Gate Leakage Current	I <sub>GSS</sub>		- 1	- 10	nA	V <sub>GS</sub> = - 150V, V <sub>DS</sub> = 0V		
Drain Saturation Current (Pulsed)	I <sub>DSS</sub>	2		10	mA	V <sub>DS</sub> = 30V, V <sub>GS</sub> = 0V		
Gate Source Cutoff Voltage	V <sub>GS(OFF)</sub>	- 2		- 12	V	V <sub>DS</sub> = 30V, I <sub>D</sub> = 1 nA		

#### Dynamic Electrical Characteristics

Forward Transconductance	g <sub>fs</sub>		800		μS	V <sub>DS</sub> = 30V, V <sub>GS</sub> = 0V	f = 1 kHz
Input Capacitance	C <sub>iss</sub>		6	10	pF	V <sub>DS</sub> = 30V, V <sub>GS</sub> = 0V	f = 1 MHz
Feedback Capacitance	C <sub>rss</sub>		2	5	pF	V <sub>DS</sub> = 30V, V <sub>GS</sub> = 0V	f = 1 MHz
Equivalent Noise Voltage	e <sub>N</sub>		10		nV/√HZ	V <sub>DS</sub> = 15V, V <sub>GS</sub> = 0V	f = 1 kHz



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