# NJ26A Process

## Silicon Junction Field-Effect Transistor

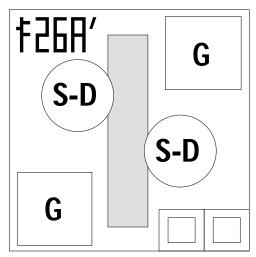
### • Low-Noise, High Gain Amplifier

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

#### Devices in this Databook based on the NJ26A Process.

**Datasheet** 2N4416, 2N4416A



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:		NJ26A Process					
Static Electrical Characteristics		Min	Тур	Мах	Unit	Test Conditions	
Gate Source Breakdown Voltage	V <sub>(BR)GSS</sub>	- 30	- 40		V	$I_{G} = -1 \ \mu A, \ V_{DS} = \emptyset V$	
Reverse Gate Leakage Current	I <sub>GSS</sub>		- 10	- 100	рА	$V_{GS} = -20 V$ , $V_{DS} = \emptyset V$	
Drain Saturation Current (Pulsed)	I <sub>DSS</sub>	2		22	mA	$V_{DS} = 15 V$ , $V_{GS} = \emptyset V$	
Gate Source Cutoff Voltage	V <sub>GS(OFF)</sub>	- 1		- 5	V	$V_{DS} = 15 V, I_D = 1 nA$	

#### **Dynamic Electrical Characteristics**

Forward Transconductance	g <sub>fs</sub>	6		mS	$V_{DS} = 15 V$ , $V_{GS} = \emptyset V$	f = 1 kHz
Input Capacitance	C <sub>iss</sub>	4	4.5	pF	$V_{DS} = 15 V$ , $V_{GS} = \emptyset V$	f = 1 MHz
Feedback Capacitance	C <sub>rss</sub>	1	1.2	pF	$V_{DS} = 15 V$ , $V_{GS} = \emptyset V$	f = 1 MHz
Equivalent Noise Voltage	ē <sub>N</sub>	4		nV/√HZ	$V_{DS} = 10 V, I_D = 5 mA$	f = 1 kHz



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