F-38

## **NJ450L Process**

# **Silicon Junction Field-Effect Transistor**

- Low-Current
- Low Gate Leakage Current
- High Input Impedance

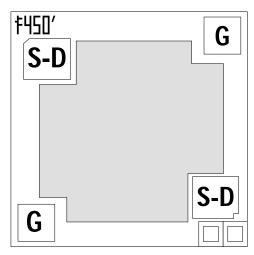
### Absolute maximum ratings at 25°C free-air temperature.

Gate Current, Ig 10 mA Operating Junction Temperature, Tj  $+150^{\circ}$ C Storage Temperature, Ts  $-65^{\circ}$ C to  $+175^{\circ}$ C

Devices in this Databook based on the NJ450L Process.

#### **Datasheet**

2N6550 IF4500 IF4501 IFN860



Die Size = 0.028" X 0.028" All Bond Pads = 0.004" Sq. Substrate is also Gate.

At 25°C free air temperature:			NJ450L Process						
Static Electrical Characteristics		Min	Тур	Max	Unit	Test Conditions			
Gate Source Breakdown Voltage	V <sub>(BR)GSS</sub>	- 25	- 25		V	$I_G = -1 \mu A$ , $V_{DS} = \emptyset V$			
Reverse Gate Leakage Current	I <sub>GSS</sub>		- 50		pА	$V_{GS} = -15 V$ , $V_{DS} = \emptyset V$			
Drain Saturation Current (Pulsed)	I <sub>DSS</sub>	5			mA	V <sub>DS</sub> = 15 V, V <sub>GS</sub> = Ø V			
Gate Source Cutoff Voltage	V <sub>GS(OFF)</sub>	- 0.1		- 4	V	V <sub>DS</sub> = 15 V, I <sub>D</sub> = 1 nA			

#### **Dynamic Electrical Characteristics**

Forward Transconductance (Pulsed)	g <sub>fs</sub>	100	mS	$V_{DS} = 15 V$ , $V_{GS} = \emptyset V$	f = 1 kHz
Input Capacitance	C <sub>iss</sub>	35	pF	$V_{DS} = \emptyset V$ , $V_{GS} = -10 V$	f = 1 MHz
Feedback Capacitance	C <sub>rss</sub>	10	pF	$V_{DS} = \emptyset V$ , $V_{GS} = -10 V$	f = 1 MHz
Equivalent Noise Voltage	ē <sub>N</sub>	0.9	nV/√HZ	$V_{DG} = 4 V$ , $I_D = 5 \text{ mA}$	f = 1 kHz

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