

Dual N-Channel Silicon Junction Field-Effect Transistor

- Low-Noise Audio Amplifier
- Equivalent to Crystalonics CD860

Absolute maximum ratings at $T_A = 25^\circ\text{C}$

Reverse Gate Source & Reverse Gate Drain Voltage	- 20 V
Continuous Forward Gate Current	50 mA
Continuous Device Power Dissipation	400 mW
Power Derating	2.3 mW/ $^\circ\text{C}$
Storage Temperature Range	- 65 $^\circ\text{C}$ to 200 $^\circ\text{C}$

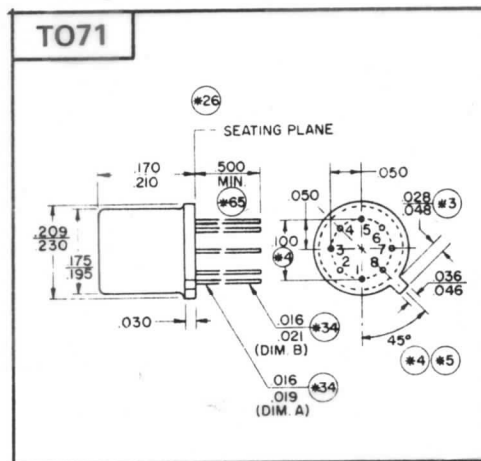
At 25 $^\circ\text{C}$ free air temperature:

Static Electrical Characteristics

		IFN860			Unit	Process NJ450L	
		Min	Typ	Max		Test Conditions	
Gate Source Breakdown Voltage	$V_{(BR)GSS}$	- 20			V	$I_G = - 1 \mu\text{A}$, $V_{DS} = 0\text{V}$	
Gate Reverse Leakage Voltage	I_{GSS}			3	nA	$V_{GS} = - 10\text{V}$, $V_{DS} = 0\text{V}$	
Gate Source Cutoff Voltage	$V_{GS(OFF)}$	- 0.3		- 3	V	$V_{DS} = 10\text{V}$, $I_D = 100 \mu\text{A}$	
Drain Saturation Current (Pulsed)	I_{DSS}	10			mA	$V_{DS} = 10\text{V}$, $V_{GS} = 0\text{V}$	
Differential Gate Source Voltage	$ V_{GS1} - V_{GS2} $			25	mV	$V_{DS} = 10\text{V}$, $I_D = 100 \mu\text{A}$	

Dynamic Electrical Characteristics

Transconductance	g_m	25	40		mS	$V_{DS} = 10\text{V}$, $I_D = - 10 \text{mA}$	$f = 1 \text{kHz}$
Common Source Input Capacitance	C_{ISS}		30	35	pF	$V_{DS} = 10\text{V}$, $I_D = - 10 \text{mA}$	$f = 1 \text{MHz}$
Common Source Reverse Transfer Capacitance	C_{RSS}		17	20	pF	$V_{DS} = 10\text{V}$, $I_D = - 10 \text{mA}$	$f = 1 \text{MHz}$
Equivalent Short Circuit Input Noise Voltage	\bar{e}_N			2	nV/ $\sqrt{\text{Hz}}$	$V_{DG} = 3\text{V}$, $I_D = 10 \text{mA}$	$f = 1 \text{kHz}$



NJ Semi-Conductors reserves the right to change test conditions, parameter limits and package dimensions without notice. Information furnished by NJ Semi-Conductors is believed to be both accurate and reliable at the time of going to press. However, NJ Semi-Conductors assumes no responsibility for any errors or omissions discovered in its use. NJ Semi-Conductors encourages customers to verify that datasheets are current before placing orders.

