

IFN860

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/°C
Storage Temperature Range	- 65°C to 200°C

At 25°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/√Hz	$V_{DG} = 3\text{V}, I_D = 10 \text{mA}$	$f = 1 \text{kHz}$

TO-71 Package

Dimensions in Inches (mm)

Pin Configuration

1 Source, 2 Drain, 3 Gate, 5 Source,
6 Drain, 7 Gate