

IF3601

N-Channel Silicon Junction Field-Effect Transistor

• Low-Noise, High Gain Amplifier

Absolute maximum ratings = T_A at 25 °C

Reverse Gate Source Voltage & Gate Drain Voltage	– 20 V
Continuous Forward Gate Current	10 mA
Continuous Device Power Dissipation	300 mW
Power Derating	2 mW/°C
Storage Temperature Range	– 65°C to 200°C

At 25°C free air temperature:

Static Electrical Characteristics

		IF3601		Process NJ3600L		
		Min	Max	Unit	Test Conditions	
Gate Source Breakdown Voltage	$V_{(BR)GSS}$	– 20		V	$I_G = -1 \mu A$, $V_{DS} = \emptyset V$	
Gate Reverse Current	I_{GSS}		– 0.1	nA	$V_{GS} = -10 V$, $V_{DS} = \emptyset V$	
Gate Source Cutoff Voltage	$V_{GS(OFF)}$	– 0.35	– 2	V	$V_{DS} = 10 V$, $I_D = 0.5 nA$	
Drain Saturation Current (Pulsed)	I_{DSS}	30		mA	$V_{DS} = 10 V$, $V_{GS} = \emptyset V$	

Dynamic Electrical Characteristics

Typ

Common Source Forward Transconductance	g_{fs}	750	mS	$V_{DS} = 10 V$, $V_{GS} = \emptyset V$	$f = 1 kHz$
Common Source Input Capacitance	C_{iss}	300	pF	$V_{DS} = \emptyset V$, $V_{GS} = -4 V$	$f = 1 MHz$
Common Source Reverse Transfer Capacitance	C_{rss}	200	pF	$V_{DS} = \emptyset V$, $V_{GS} = -4 V$	$f = 1 MHz$
Equivalent Short Circuit Input Noise Voltage	$\bar{e}_N$	0.3	nV/√Hz	$V_{DG} = 3 V$, $I_D = 5 mA$	$f = 100 Hz$

TO-39 Package

Dimensions in Inches (mm)

Pin Configuration

1 Source, 2 Drain, 3 Gate & Case