

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	$V_{GS} = -10V, V_{DS} = \emptyset V$	
Gate Source Cutoff Voltage	$V_{GS(OFF)}$	- 0.35	- 2	V	$V_{DS} = 10V, I_D = 0.5 nA$	
Drain Saturation Current (Pulsed)	I_{DSS}	30		mA	$V_{DS} = 10V, V_{GS} = \emptyset V$	

Dynamic Electrical Characteristics

Typ

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

TO-39 Package

Dimensions in Inches (mm)

Pin Configuration

1 Source, 2 Drain, 3 Gate & Case



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