

## 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 &amp; Case



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