

NJ3600L Process

Silicon Junction Field-Effect Transistor

• Large Capacitance Detector Pre-Amplifier

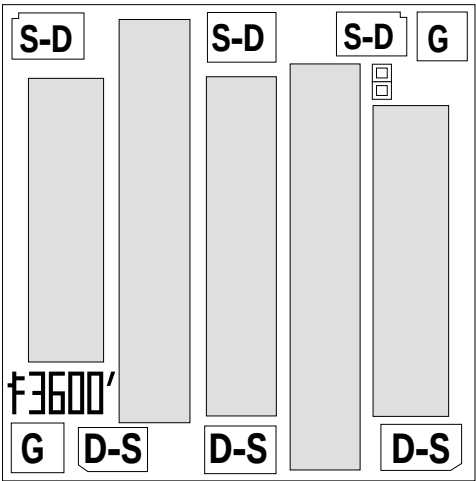
Absolute maximum ratings at TA = 25 °C

Gate Current, Ig	10 mA
Operating Junction Temperature, Tj	+150°C
Storage Temperature, Ts	– 65°C to +175°C

Device in this Databook based on the NJ3600L Process.

Datasheet

IF3601
IF3602



Die Size = 0.074" X 0.074"
All Bond Pads ≥ 0.004" Sq.
Substrate is also Gate.

At 25°C free air temperature:		NJ3600L Process					
		Min	Typ	Max	Unit	Test Conditions	
Gate Source Breakdown Voltage	V _{(BR)GSS}	– 15	– 22		V	I _G = 1 μA, V _{DS} = 0V	
Reverse Gate Leakage Current	I _{GSS}		100	1000	pA	V _{GS} = 10V, V _{DS} = 0V	
Drain Saturation Current (Pulsed)	I _{DSS}	50		1000	mA	V _{DS} = 10V, V _{GS} = 0V	
Gate Source Cutoff Voltage	V _{GS(OFF)}	– 0.5		– 3	V	V _{DS} = 10V, I _D = 1 nA	

Dynamic Electrical Characteristics							
Drain Source ON Resistance	r _{ds(on)}	1		4	Ω	I _D = 1 mA, V _{GS} = 0V	f = 1 kHz
Forward Transconductance (Pulsed)	g _{fs}		750		mS	V _{DS} = 10V, V _{GS} = 0V	f = 1 kHz
Input Capacitance	C _{iss}		650		pF	V _{DS} = 10V, V _{GS} = 0V	f = 1 kHz
Feedback Capacitance	C _{rss}		80		pF	V _{DS} = 10V, V _{GS} = 0V	f = 1 kHz
Equivalent Noise Voltage	e _N		0.35		nV/√HZ	V _{DG} = 3V, I _D = 5 mA	f = 30 Hz

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