Silicon Junction Field-Effect Transistor

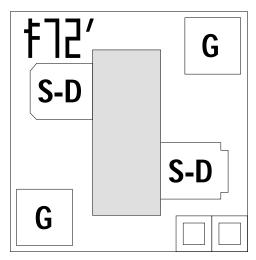
• VHF/UHF Amplifier

Absolute maximum ratings at 25 °C free-air temperature.Gate Current, Ig10 mAOperating Junction Temperature, Tj+150°CStorage Temperature, Ts- 65°C to +175°C

Devices in this Databook based on the NJ72L Process.

Datasheet

U310 U311 U350



Die Size = 0.020" X 0.020" All Bond Pads = 0.004" Sq. Substrate is also Gate.

At 25°C free air temperature:			NJ72L Process				
Static Electrical Characteristics		Min	Тур	Мах	Unit	Test Conditions	
Gate Source Breakdown Voltage	V _{(BR)GSS}	- 20	- 25		V	$I_G = -1 \ \mu A, \ V_{DS} = \emptyset V$	
Reverse Gate Leakage Current	I _{GSS}		- 10	- 100	pА	$V_{GS} = -15 V$, $V_{DS} = Ø V$	
Drain Saturation Current (Pulsed)	I _{DSS}	5		90	mA	$V_{DS} = 15 V, V_{GS} = \emptyset V$	
Gate Source Cutoff Voltage	V _{GS(OFF)}	– 1		- 5.5	V	V _{DS} = 15V, I _D = 1 nA	

Dynamic Electrical Characteristics

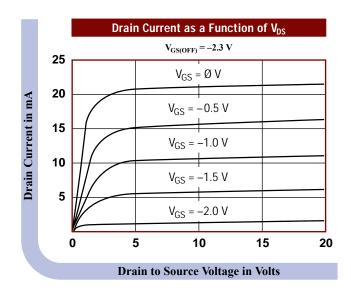
Forward Transconductance	9 _{fs}	22	mS	$V_{DS} = 15 V$, $V_{GS} = \emptyset V$	f = 1 kHz
Drain Source ON Resistance	r _{ds(on)}	40	Ω	$I_D = 1 \text{ mA}, V_{GS} = \emptyset V$	f = 1 kHz
Input Capacitance	C _{iss}	7	pF	$V_{DS} = \emptyset V$, $V_{GS} = -10 V$	f = 1 MHz
Feedback Capacitance	C _{rss}	2.5	рF	$V_{DS} = \emptyset V, V_{GS} = -10 V$	f = 1 MHz

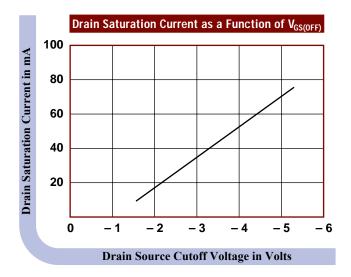


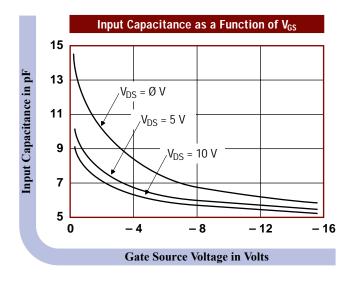
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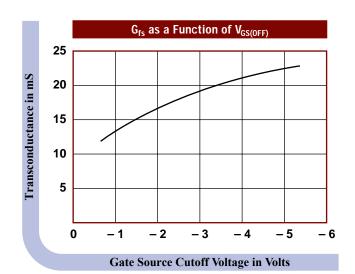
NJ72L Process

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R_{ds} as a Function of V_{GS(0FF)} 80 Drain Source (on) Resistance in Ω 70 60 50 40 30 20 10 0 - 1 - 2 - 3 - 4 - 5 - 6

Drain Source Cutoff Voltage in Volts

