NJ72L Process

Silicon Junction Field-Effect Transistor

- VHF/UHF Amplifier

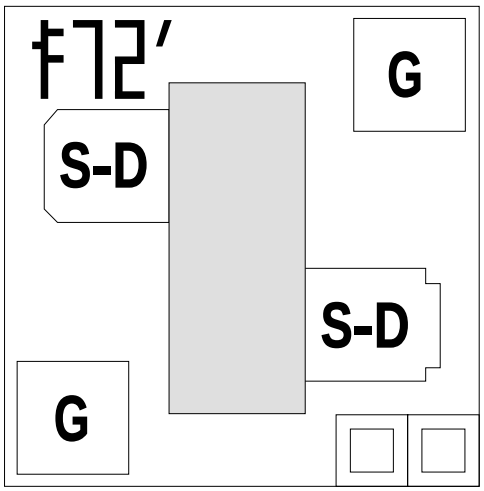
Absolute maximum ratings at 25°C free-air temperature.

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

Devices in this Databook based on the NJ72L Process.

Datasheet

U310
U311
U350

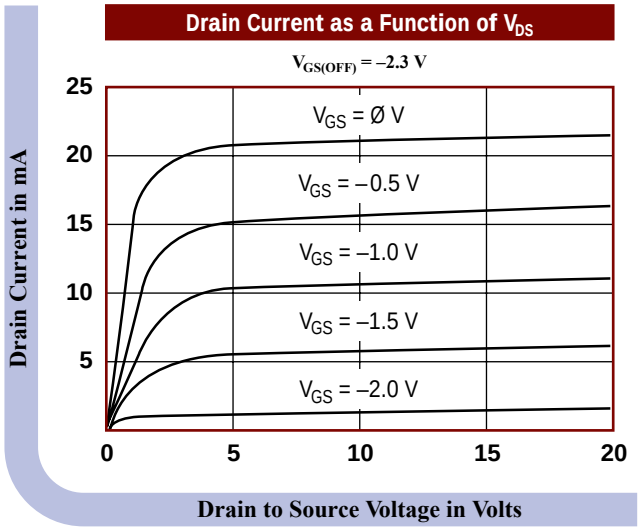


Die Size = 0.020" X 0.020"
All Bond Pads = 0.004" Sq.
Substrate is also Gate.

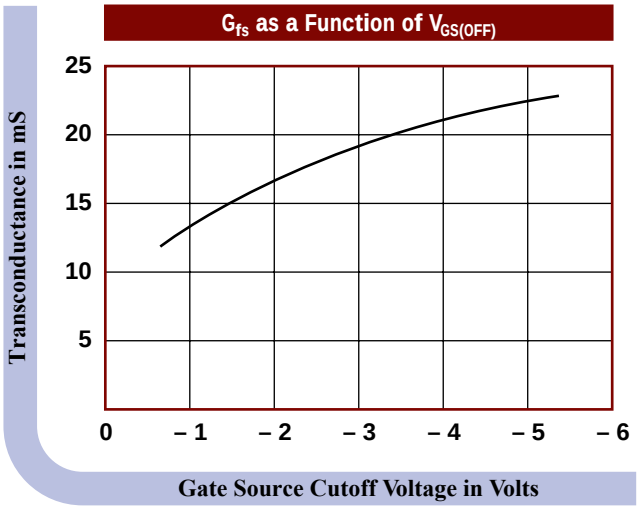
At 25°C free air temperature:		NJ72L Process					
Static Electrical Characteristics		**Min**	**Typ**	**Max**	**Unit**	**Test Conditions**	
Gate Source Breakdown Voltage	$V_{(BR)GSS}$	– 20	– 25		V	I_G = – 1 µA, V_{DS} = ØV	
Reverse Gate Leakage Current	I_{GSS}		– 10	– 100	pA	V_{GS} = – 15V, V_{DS} = ØV	
Drain Saturation Current (Pulsed)	I_{DSS}	5		90	mA	V_{DS} = 15V, V_{GS} = ØV	
Gate Source Cutoff Voltage	$V_{GS(OFF)}$	– 1		– 5.5	V	V_{DS} = 15V, I_D = 1 nA	
Dynamic Electrical Characteristics							
Forward Transconductance	g_{fs}		22		mS	V_{DS} = 15V, V_{GS} = ØV	f = 1 kHz
Drain Source ON Resistance	$r_{ds(on)}$		40		Ω	I_D = 1 mA, V_{GS} = ØV	f = 1 kHz
Input Capacitance	C_{iss}		7		pF	V_{DS} = ØV, V_{GS} = – 10V	f = 1 MHz
Feedback Capacitance	C_{rss}		2.5		pF	V_{DS} = ØV, V_{GS} = – 10V	f = 1 MHz

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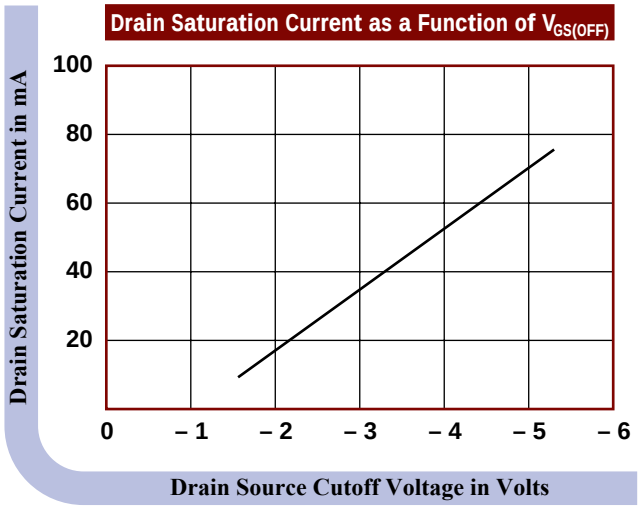
Drain Current as a Function of V_{DS}



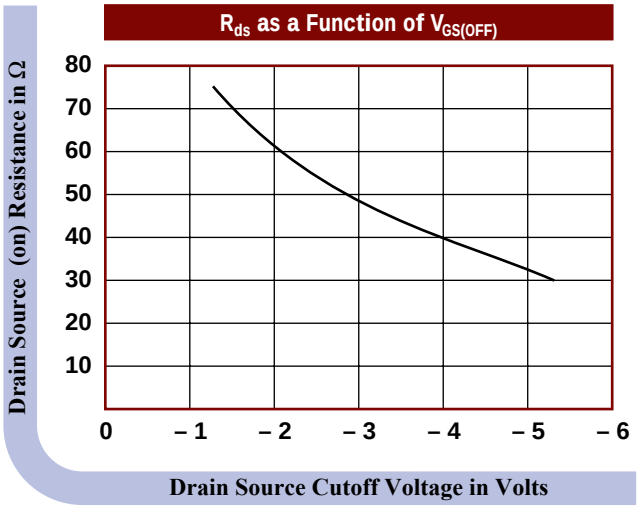
G_{fs} as a Function of $V_{GS(OFF)}$



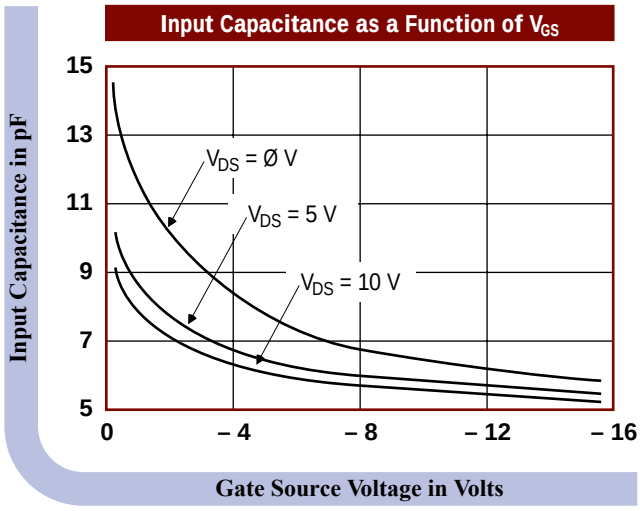
Drain Saturation Current as a Function of $V_{GS(OFF)}$



R_{ds} as a Function of $V_{GS(OFF)}$



Input Capacitance as a Function of V_{GS}



Feedback Capacitance as a Function of V_{GS}

