NJ26L Process

Silicon Junction Field-Effect Transistor

- Low-Noise, High Gain Amplifier

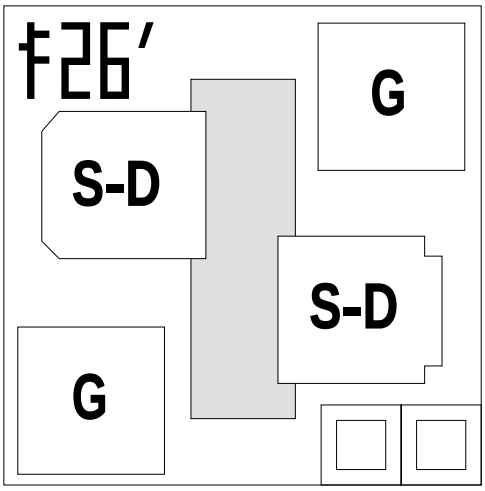
Absolute maximum ratings at TA = 25°C

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

Devices in this Databook based on the NJ26L Process.

Datasheet

2N5397, 2N5398
J210, J211, J212



Die Size = 0.016" X 0.016"
All Bond Pads = 0.004" Sq.
Substrate is also Gate.

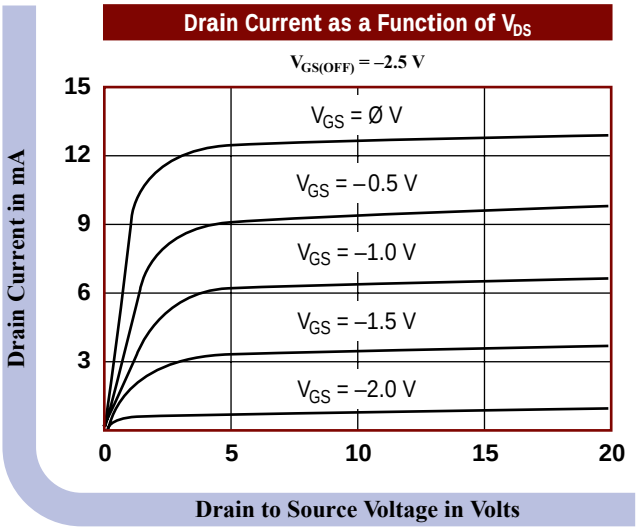
At 25°C free air temperature:		NJ26L Process					
Static Electrical Characteristics		**Min**	**Typ**	**Max**	**Unit**	**Test Conditions**	
Gate Source Breakdown Voltage	$V_{(BR)GSS}$	– 25	– 30		V	I_G = – 1 µA, V_{DS} = ØV	
Reverse Gate Leakage Current	I_{GSS}		– 10	– 100	pA	V_{GS} = – 15V, V_{DS} = ØV	
Drain Saturation Current (Pulsed)	I_{DSS}	2		40	mA	V_{DS} = 15V, V_{GS} = ØV	
Gate Source Cutoff Voltage	$V_{GS(OFF)}$	– 0.5		– 6	V	V_{DS} = 15V, I_D = 1 nA	
Dynamic Electrical Characteristics							
Forward Transconductance	g_{fs}		8		mS	V_{DS} = 15V, V_{GS} = ØV	f = 1 kHz
Input Capacitance	C_{iss}		5		pF	V_{DS} = 15V, V_{GS} = ØV	f = 1 MHz
Feedback Capacitance	C_{rss}		1.5		pF	V_{DS} = 15V, V_{GS} = ØV	f = 1 MHz
Equivalent Noise Voltage	$\bar{e}_N$		2.5		nV/√HZ	V_{DS} = 15V, I_D = 5 mA	f = 1 kHz

InterFET Corporation
1000 N. Shiloh Road, Garland, TX 75042
(972) 487-1287 FAX (972) 276-3375
www.interfet.com

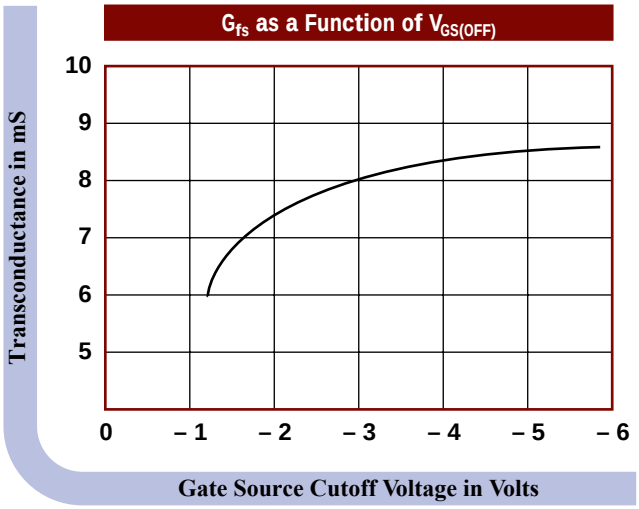
NJ26L Process

Silicon Junction Field-Effect Transistor

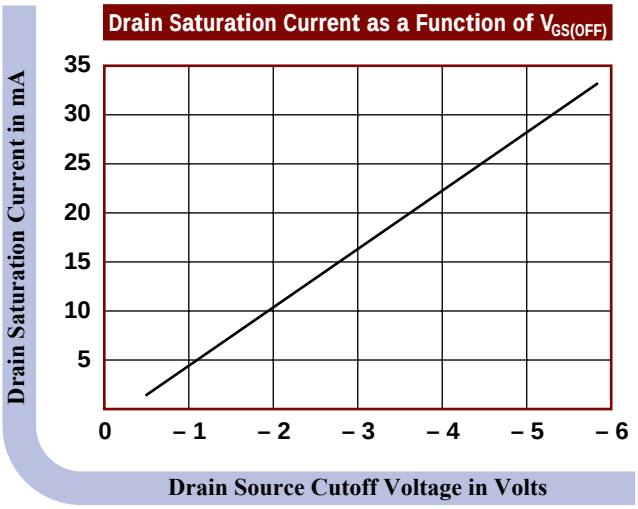
Drain Current as a Function of V_{DS}



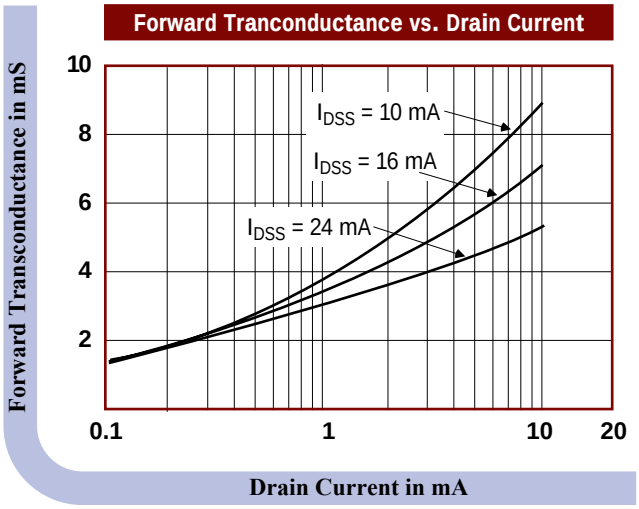
G_{fs} as a Function of $V_{GS(OFF)}$



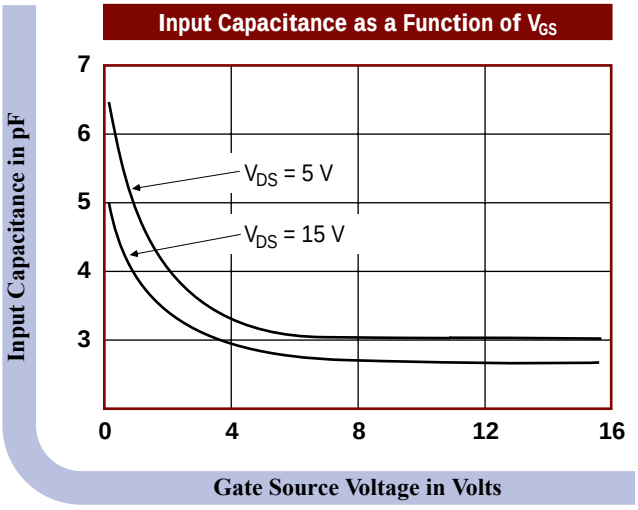
Drain Saturation Current as a Function of $V_{GS(OFF)}$



Forward Tranconductance vs. Drain Current



Input Capacitance as a Function of V_{GS}



Feedback Capacitance as a Function of V_{GS}