NJ42 Process

Silicon Junction Field-Effect Transistor

- General Purpose Amplifier
- High Breakdown Voltage

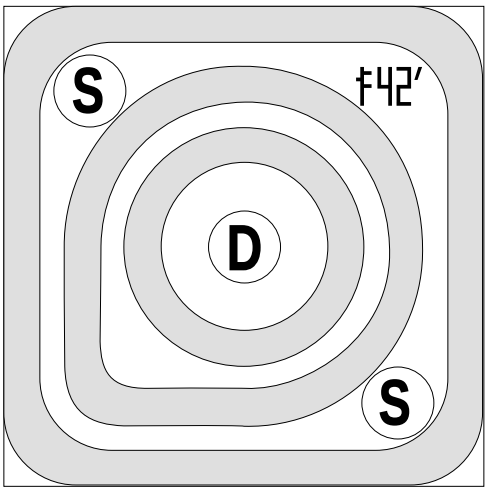
Absolute maximum ratings at TA = 25°C

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 NJ42 Process.

Datasheet

2N6449, 2N6450
IFN6449, IFN6450



Die Size = 0.032" X 0.032"
All Bond Pads = 0.004", Dia.
Substrate is also Gate.

At 25°C free air temperature:		NJ42 Process					
Static Electrical Characteristics		**Min**	**Typ**	**Max**	**Unit**	**Test Conditions**	
Gate Source Breakdown Voltage	$V_{(BR)GSS}$	– 300	– 400		V	I_G = 1 µA, V_{DS} = ØV	
Reverse Gate Leakage Current	I_{GSS}		– 1	– 10	nA	V_{GS} = – 150V, V_{DS} = ØV	
Drain Saturation Current (Pulsed)	I_{DSS}	2		10	mA	V_{DS} = 30V, V_{GS} = ØV	
Gate Source Cutoff Voltage	$V_{GS(OFF)}$	– 2		– 12	V	V_{DS} = 30V, I_D = 1 nA	
Dynamic Electrical Characteristics							
Forward Transconductance	g_{fs}		800		µS	V_{DS} = 30V, V_{GS} = ØV	f = 1 kHz
Input Capacitance	C_{iss}		6	10	pF	V_{DS} = 30V, V_{GS} = ØV	f = 1 MHz
Feedback Capacitance	C_{rss}		2	5	pF	V_{DS} = 30V, V_{GS} = ØV	f = 1 MHz
Equivalent Noise Voltage	$\bar{e}_N$		10		nV/√HZ	V_{DS} = 15V, V_{GS} = ØV	f = 1 kHz

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1000 N. Shiloh Road, Garland, TX 75042
(972) 487-1287 FAX (972) 276-3375
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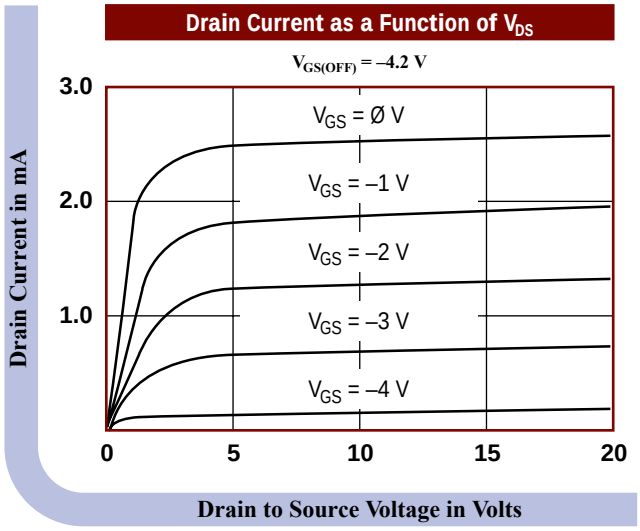
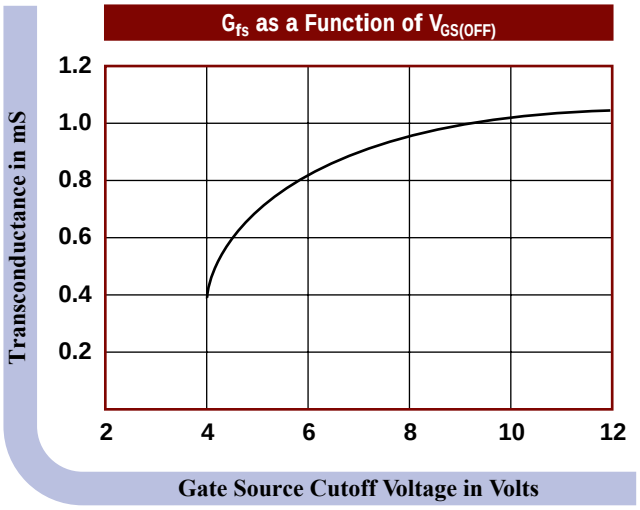
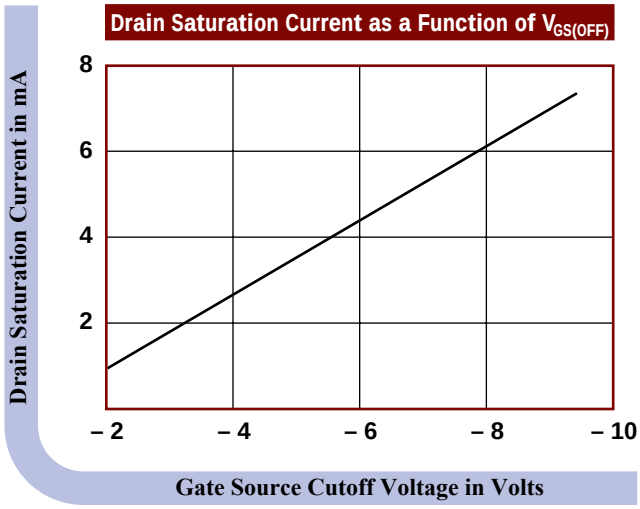
Drain Current as a Function of V_{DS}



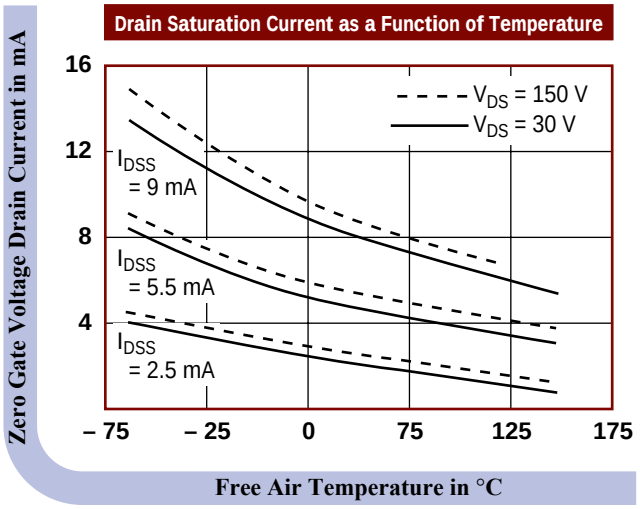
G_{fs} as a Function of $V_{GS(OFF)}$



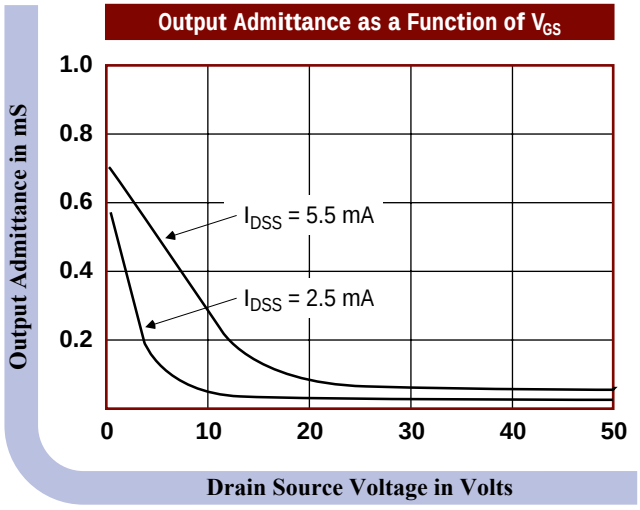
Drain Saturation Current as a Function of $V_{GS(OFF)}$



Drain Saturation Current as a Function of Temperature



Output Admittance as a Function of V_{GS}



Capacitance as a Function of V_{GS}