n-channel JFETs *designed for . . .*

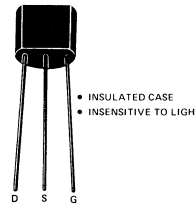
- **VHF/UHF Amplifiers**
- **Mixers**
- **Oscillators**

Performance Curves NH See Section 4

BENEFITS

- Low Cost
- Automatic Insertion Package
- Specified for 100 MHz Operation

TO-92
See Section 5



*ABSOLUTE MAXIMUM RATINGS

Drain-Gate Voltage . . . . . 25 V
Source-Gate Voltage . . . . . 25 V
Drain-Source Voltage . . . . . 25 V
Forward Gate Current . . . . . 10 mA
Total Device Dissipation
at (or Below) T_A = 25°C
(Derate 2.82 mW/°C to 135°C) . . . . . 310 mW
Operating Junction Temperature Range . . . . . −65 to +135°C
Storage Temperature Range . . . . . −65 to +150°C

*ELECTRICAL CHARACTERISTICS (25°C unless otherwise noted)

		Characteristic		2N5668 Min	2N5668 Max	2N5669 Min	2N5669 Max	2N5670 Min	2N5670 Max	Unit	Test Conditions	
1	STATIC	I_{GSS}	Gate Reverse Current		−2.0		−2.0		−2.0	nA	V_{GS} = −15 V, V_{DS} = 0	
2					−2.0		−2.0		−2.0	μA		T_A = +100°C
3		BV_{GSS}	Gate-Source Breakdown Voltage	−25		−25		−25		V	I_G = −10 μA, V_{DS} = 0	
4		$V_{GS(off)}$	Gate-Source Cutoff Voltage	0.2	4.0	1.0	6.0	2.0	8.0		V_{DS} = 15 V, I_D = 10 nA	
5		I_{DSS}	Saturation Drain Current	1.0	5.0	4.0	10	8.0	20	mA	V_{DS} = 15 V, V_{GS} = 0 (Note 1)	
6	DYNAMIC	g_{fs}	Common-Source Forward Transconductance	1500	6500	2000	6500	3000	7500	μmhos	V_{DS} = 15 V, V_{GS} = 0	f = 1 kHz
7		g_{os}	Common-Source Output Conductance		20		50		75			
8		$Re(Y_{fs})$	Common-Source Forward Transconductance	1000		1600		2500				f = 100 MHz
9		$Re(Y_{os})$	Common-Source Output Conductance		50		100		150			
10		$Re(Y_{is})$	Common-Source Input Conductance		800		800		800			
11		C_{iss}	Common-Source Input Capacitance		7.0		7.0		7.0	pF		f = 1 MHz
12		C_{rss}	Common-Source Reverse Transfer Capacitance		3.0		3.0		3.0			
13		C_{oss}	Common-Source Output Capacitance		4.0		4.0		4.0			
14		NF	Noise Figure		2.5		2.5		2.5	dB	V_{DS} = 15 V, V_{GS} = 0, R_G = 1K Ω	f = 100 MHz
15		G_{ps}	Common-Source Power Gain	16		16		16			V_{DS} = 15 V, V_{GS} = 0	

*JEDEC registered data

NH

NOTE:
1. Pulse test PW = 300 μs, duty cycle ≤ 3%.