n-channel JFET *designed for . . .*

- **VHF/UHF Amplifier**
- **Oscillators**
- **Mixers**

Performance Curves NH
See Section 4

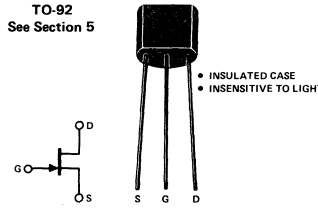
BENEFITS

- Specified for 100 MHz and 400 MHz Operation
- Low Cost
- Automated Insertion Package

ABSOLUTE MAXIMUM RATINGS

Drain-Source Voltage . . . . . 30 V
Drain-Gate Voltage . . . . . 30 V
Reverse Gate-Source Voltage. . . . . −30 V
Forward Gate Current. . . . . 50 mA
Total Device Dissipation @ 25°C. . . . . 360 mW
Derate above 25°C . . . . . 2.88 mW/°C
Storage Temperature Range . . . . . −65 to +150°C
Operating Junction Temperature Range . . . . . −55 to +125°C
Lead Temperature
(1/16" from case for 10 seconds) . . . . . 260°C

TO-92
See Section 5



- INSULATED CASE
- INSENSITIVE TO LIGHT

ELECTRICAL CHARACTERISTICS (25°C unless otherwise noted)

		Characteristic		Min	Max	Unit	Test Conditions	
1	STATIC	BV_{GSS}	Gate-Source Breakdown Voltage	−30		V	I_G = −1 μA, V_{DS} = 0	
2		I_{GSS}	Gate Reverse Current		−1.0	nA	V_{GS} = −20 V, V_{DS} = 0	
3					−0.5	μA		T_A = 100°C
4		$V_{GS(off)}$	Gate-Source Cutoff Voltage	−1	−6	V	V_{DS} = 15 V, I_D = 10 nA	
5		I_{DSS}	Saturation Drain-Current (Note 1)	5	15	mA	V_{DS} = 15 V, V_{GS} = 0	
6	DYNAMIC	$\|y_{fs}\|$	Common-Source Forward Transfer Admittance	4.5	7.5	mmho	V_{DS} = 15 V, V_{GS} = 0, f = 1 kHz	
7		$\|y_{os}\|$	Common-Source Output Admittance		0.05	mmho	V_{DS} = 15 V, V_{GS} = 0, f = 1 kHz	
8		C_{iss}	Common-Source Input Capacitance		4.5	pF	V_{DS} = 15 V, V_{GS} = 0, f = 1 MHz	
9		C_{rss}	Common-Source Reverse Transfer Capacitance		1.0	pF		
10		$Re(Y_{is})$	Common-Source Input Conductance		0.1	mmho	V_{DS} = 15 V, V_{GS} = 0, f = 100 MHz	
11		$Im(Y_{is})$	Common-Source Input Susceptance		3	mmho		
12		$Re(Y_{os})$	Common-Source Output Conductance		0.075	mmho		
13		$Im(Y_{os})$	Common-Source Output Susceptance		0.9	mmho		
14		$Re(Y_{is})$	Common-Source Input Conductance		1	mmho	V_{DS} = 15 V, V_{GS} = 0, f = 400 MHz	
15		$Im(Y_{is})$	Common-Source Input Susceptance		12	mmho		
16		$Re(Y_{fs})$	Common-Source Forward Transfer Conductance		4	mmho		
17		$Re(Y_{os})$	Common-Source Output Conductance		0.1	mmho		
18		$Im(Y_{os})$	Common-Source Output Conductance		4	mmho		
19		G_{ps}	Common-Source Neutralized Insertion Power Gain	18		dB	V_{DS} = 15 V, I_D = 5 mA	f = 100 MHz
20				10		dB		f = 400 MHz
21		NF	Noise Figure		2	dB	V_{DS} = 15 V, I_D = 5 mA, R_G = 1K Ω	f = 100 MHz
22					4	dB		f = 400 MHz

NOTE:
1. Pulse tested: pulse width = 300 μs, duty cycle ≤ 2%.

NH