



n-channel JFETs designed for . . .

- VHF/UHF Amplifiers
- Oscillators
- Mixers

Performance Curves NZF
See Section 4

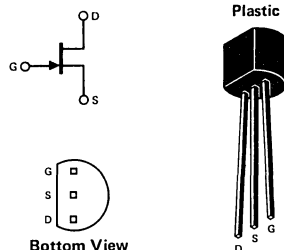
BENEFITS

- High Power Gain
20–23 dB Typical at 100 MHz,
Common-Source
17.5–20.5 dB Typical at 100 MHz,
Common-Gate
- Low Noise Figure
1.3 dB Typical at 100 MHz
- High Dynamic Range
Greater than 100 dB

TO-92
See Section 6

ABSOLUTE MAXIMUM RATINGS (25°C)

Gate-Drain or Gate-Source Voltage -25 V
 Gate Current 10 mA
 Total Device Dissipation at 25°C Ambient
 (Derate 3.27 mW/°C) 360 mW
 Operating Temperature Range -55 to 135°C
 Storage Temperature Range -55 to 150°C
 Lead Temperature Range
 (1/16" from case for 10 seconds) 300°C



ELECTRICAL CHARACTERISTICS (25°C unless otherwise specified)

Characteristic		Min	Max	Unit	Test Conditions
1 S T A T I C	I _{GSS} Gate Reverse Current		-0.5	nA	V _{GS} = -15 V, V _{DS} = 0 T _A = 125°C
			-0.1	μA	
3	BV _{GS} Gate-Source Breakdown Voltage	-25		V	I _G = -1 μA, V _{DS} = 0
4	V _{GS(off)} Gate-Source Cutoff Voltage (Note 1)	-1.5	-7.0		
5	I _{DSS} Saturation Drain Current (Note 1, 2)	4	45	mA	V _{DS} = 10 V, V _{GS} = 0
6 D Y N A M I C	g _{fs} Common-Source Forward Transconductance (Note 1)	4500	9000	μmho	V _{DS} = 10 V, I _D = 5 mA, f = 1 kHz
	g _{os} Common-Source Output Conductance		200		
8	C _{rss} Common-Source Reverse Transfer Capacitance		1.7	pF	V _{DG} = 10 V, I _D = 5 mA, f = 1 MHz
9	C _{iSS} Common-Source Input Capacitance		5.5		

Characteristic	J300A		J300B		J300C		J300D		Unit	Test Conditions
	Min	Max	Min	Max	Min	Max	Min	Max		
I _{DSS} (Note 2) Saturation Drain Current	4	9	7	15	12	25	21	45	mA	V _{DS} = 10V V _{GS} = 0V
V _{GS(off)} Gate Source Cutoff Voltage	-1.5	-3.0	-2.0	-4.0	-2.5	-5.0	-3.5	-7.0	V	V _{DS} = 10V I _D = 1 nA

NOTES:

1. I_{DSS} and V_{GS(off)} are selected into 5 ranges and labeled according to above table.
2. Pulse test PW ≤ 300 μs, duty cycle ≤ 3%.

NZF

