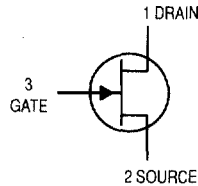
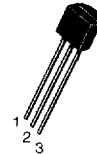


**JFETs Low Frequency/
Low Noise**
N-Channel — Depletion



J202



CASE 29-04, STYLE 5
TO-92 (TO-226AA)

MAXIMUM RATINGS

Rating	Symbol	Value	Unit
Drain-Source Voltage	V_{DS}	40	Vdc
Drain-Gate Voltage	V_{DG}	40	Vdc
Gate-Source Voltage	V_{GS}	40	Vdc
Gate Current	I_G	50	mAdc
Total Device Dissipation @ $T_A = 25^\circ\text{C}$ Derate above 25°C	P_D	310 2.82	mW mW/ $^\circ\text{C}$
Storage Temperature Range	T_{stg}	-65 to +150	$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS ($T_A = 25^\circ\text{C}$ unless otherwise noted)

Characteristic	Symbol	Min	Max	Unit
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OFF CHARACTERISTICS

Gate-Source Breakdown Voltage ($I_G = -1.0 \mu\text{Adc}$)	$V_{(BR)GSS}$	-40	—	Vdc
Gate Reverse Current ($V_{GS} = -20 \text{Vdc}$)	I_{GSS}	—	-100	pA
Gate Source Cutoff Voltage ($V_{DS} = 20 \text{Vdc}$, $I_D = 10 \text{nAdc}$)	$V_{GS(off)}$	-0.8	-4.0	Vdc

ON CHARACTERISTICS

Zero-Gate-Voltage Drain Current ⁽¹⁾ ($V_{DS} = 20 \text{Vdc}$)	I_{DSS}	0.9	4.5	mAdc
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SMALL-SIGNAL CHARACTERISTICS

Forward Transfer Admittance ⁽¹⁾ ($V_{DS} = 20 \text{Vdc}$, $f = 1.0 \text{kHz}$)	$ y_{fs} $	1000	—	μmhos
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1. Pulse Width $\leq 2.0 \text{ms}$.

TYPICAL CHARACTERISTICS

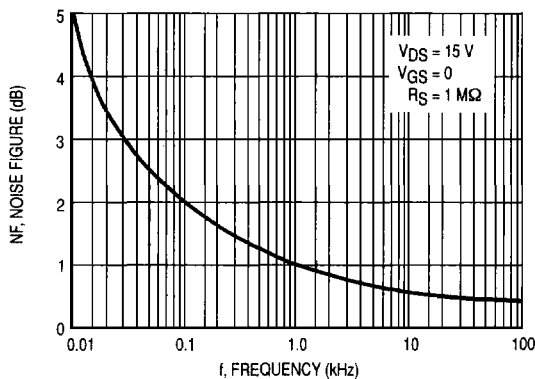


Figure 1. Noise Figure versus Frequency

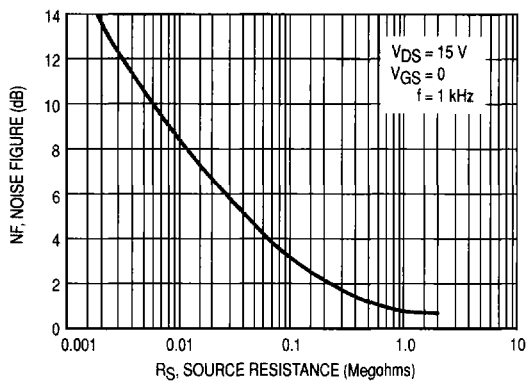


Figure 2. Noise Figure versus Source Resistance

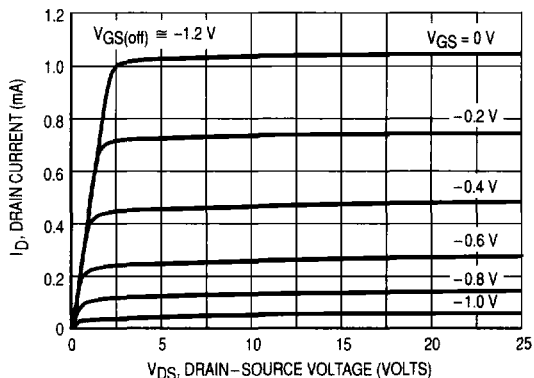


Figure 3. Typical Drain Characteristics

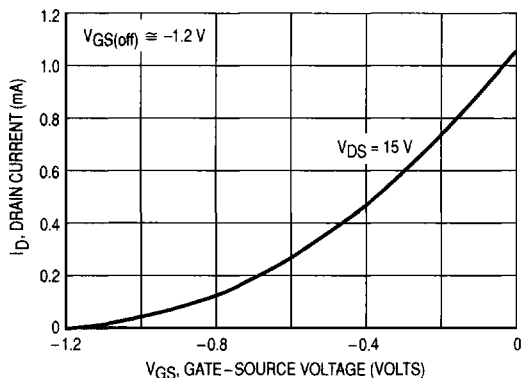


Figure 4. Common Source Transfer Characteristics

TYPICAL CHARACTERISTICS

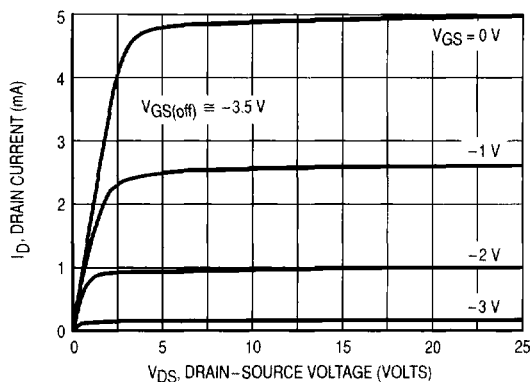


Figure 5. Typical Drain Characteristics

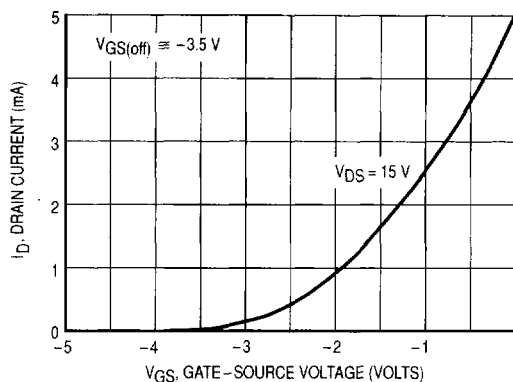


Figure 6. Common Source Transfer Characteristics

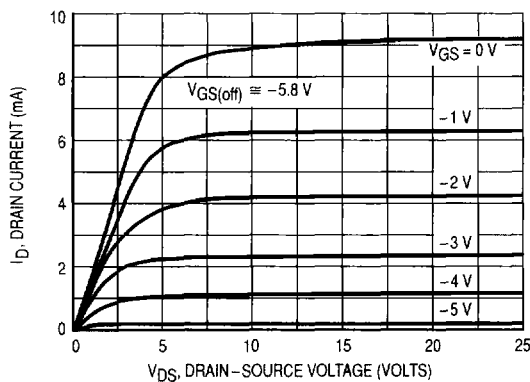


Figure 7. Typical Drain Characteristics

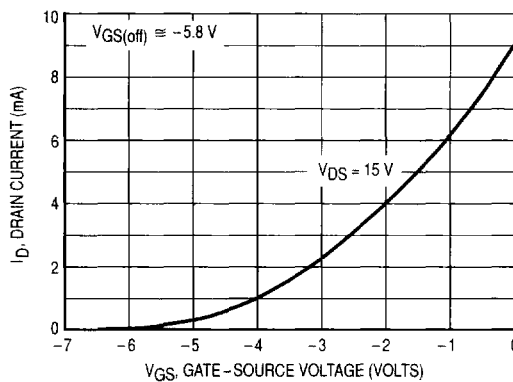


Figure 8. Common Source Transfer Characteristics

Note: Graphical data is presented for dc conditions. Tabular data is given for pulsed conditions (Pulse Width = 630 ms, Duty Cycle = 10%). Under dc conditions, self heating in higher I_{DSS} units reduces I_{DSS} .