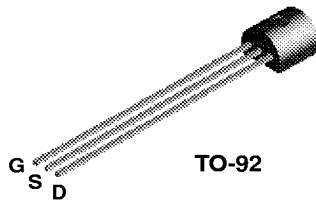
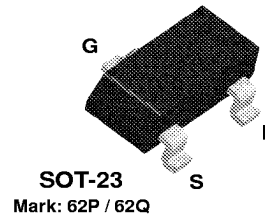


**J201
J202**



**MMBFJ201
MMBFJ202**



N-Channel General Purpose Amplifier

This device is designed primarily for low level audio and general purpose applications with high impedance signal sources. Sourced from Process 52.

Absolute Maximum Ratings*

TA = 25°C unless otherwise noted

Symbol	Parameter	Value	Units
V _{DG}	Drain-Gate Voltage	40	V
V _{GS}	Gate-Source Voltage	- 40	V
I _{GF}	Forward Gate Current	50	mA
T _J , T _{stg}	Operating and Storage Junction Temperature Range	-55 to +150	°C

*These ratings are limiting values above which the serviceability of any semiconductor device may be impaired.

NOTES:

- 1) These ratings are based on a maximum junction temperature of 150 degrees C.
- 2) These are steady state limits. The factory should be consulted on applications involving pulsed or low duty cycle operations

Thermal Characteristics

TA = 25°C unless otherwise noted

Symbol	Characteristic	Max		Units
		J201 / J202	*MMBFJ201	
P _D	Total Device Dissipation Derate above 25°C	625	350	mW
		5.0	2.8	mW/°C
R _{θJC}	Thermal Resistance, Junction to Case	83.3		°C/W
R _{θJA}	Thermal Resistance, Junction to Ambient	200	357	°C/W

* Device mounted on FR-4 PCB 1.6" X 1.6" X 0.06."

N-Channel General Purpose Amplifier

(continued)

Electrical Characteristics

TA = 25°C unless otherwise noted

Symbol	Parameter	Test Conditions	Min	Max	Units
OFF CHARACTERISTICS					
$V_{(BR)GSS}$	Gate-Source Breakdown Voltage	$I_G = -1.0 \mu A, V_{DS} = 0$	-40		V
I_{GSS}	Gate Reverse Current	$V_{GS} = -20 V, V_{DS} = 0$		-100	pA
$V_{GS(OFF)}$	Gate-Source Cutoff Voltage	$V_{DS} = 20 V, I_D = 10 nA$	J201 -0.3	-1.5	V
			J202 -0.8	-4.0	V

ON CHARACTERISTICS

I_{DSS}	Zero-Gate Voltage Drain Current*	$V_{DS} = 20 V, I_{GS} = 0$	J201 0.2	1.0	mA
			J202 0.9	4.5	mA

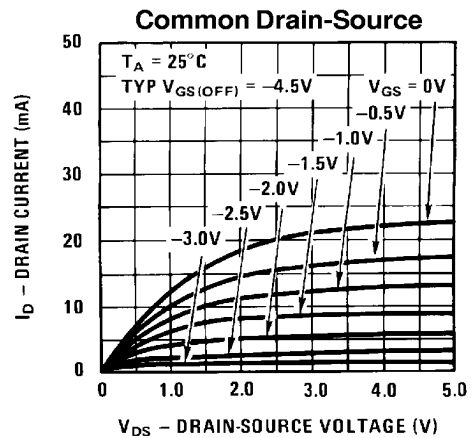
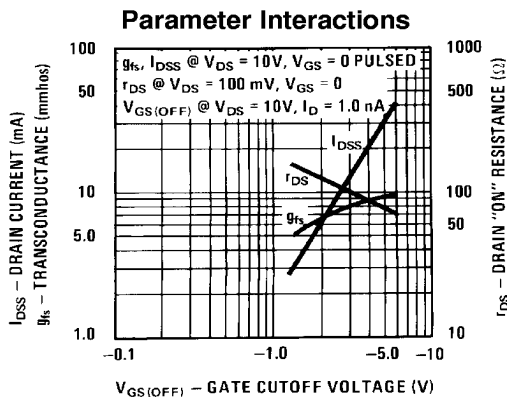
SMALL SIGNAL CHARACTERISTICS

y_{fs}	Forward Transfer Admittance	$V_{DS} = 20, f = 1.0 kHz$	J201 500		$\mu mhos$
			J202 1000		$\mu mhos$

*Pulse Test: Pulse Width $\leq 300 \mu s$

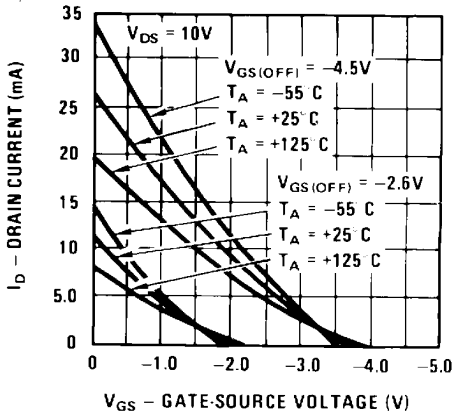
J201 / J202 / MMBFJ201 / MMBFJ202

Typical Characteristics

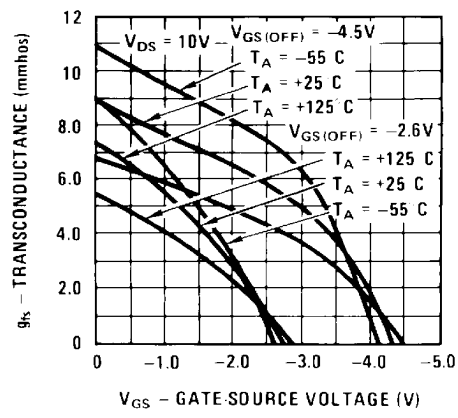


Typical Characteristics (continued)

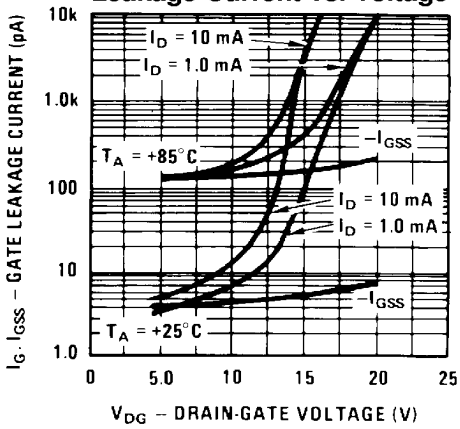
Transfer Characteristics



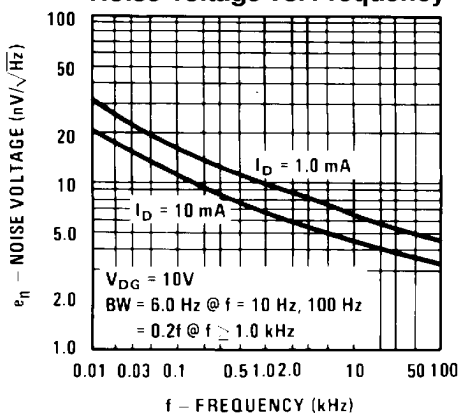
Transfer Characteristics



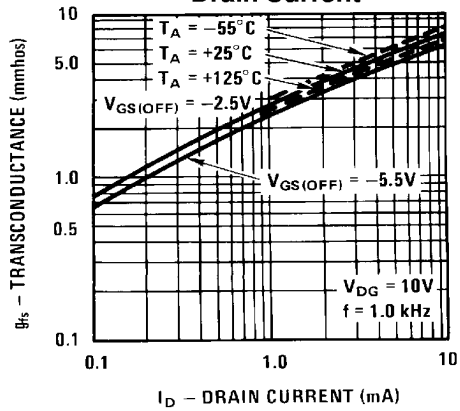
Leakage Current vs. Voltage



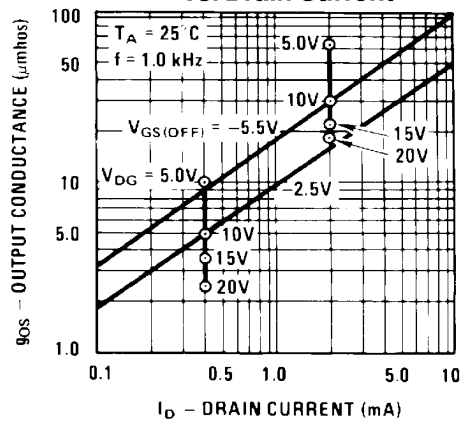
Noise Voltage vs. Frequency



Transconductance vs. Drain Current



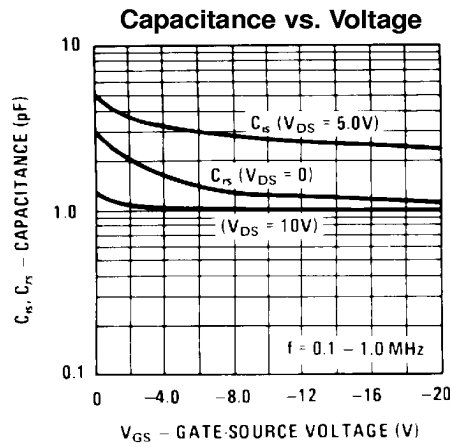
Output Conductance vs. Drain Current



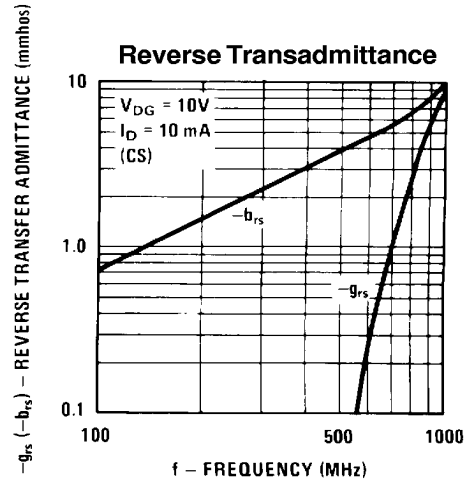
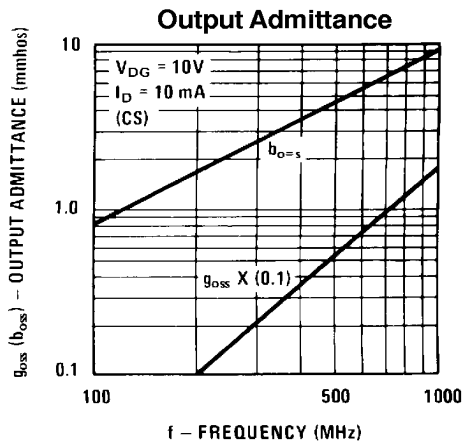
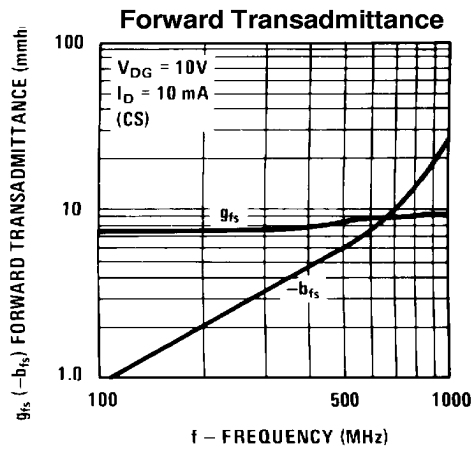
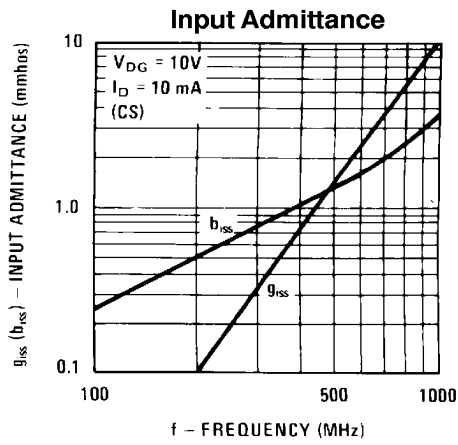
N-Channel General Purpose Amplifier

(continued)

Typical Characteristics (continued)



Common Source Characteristics



J201 / J202 / MMBFJ201 / MMBFJ202

Common Gate Characteristics

