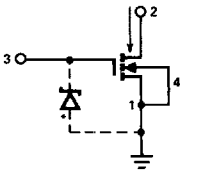
FEATURES

- Ion-implanted for greater control and reliability
- Wide dynamic range
- Positive bias only
- High gain through UHF range - 10dB at 1.5GHz
- Low noise through UHF range - 3.2dB at 1.0GHz
- Low input capacitance - 3.0pF
- Low feedback capacitance - 0.20pF
- High drain-to-source voltage - +25V
- High forward transconductance - 20,000umhos

COMMON SOURCE BIAS SCHEME

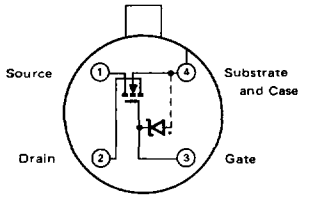


+VDS = 0 +20 Volts
+VGS = 0 +4 Volts
+IDS = 0 +20mA

*DIODE PROTECTION ON SD 203 ONLY.

PIN CONFIGURATION

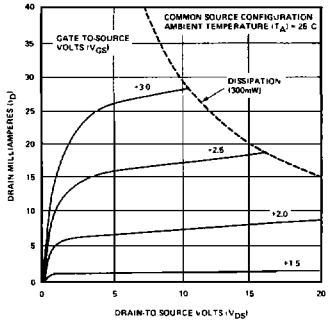
PACKAGE



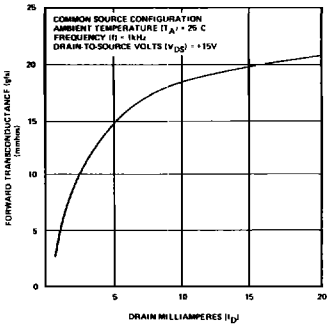
*DIODE PROTECTION ON SD203 ONLY.

CHARACTERISTIC CURVES

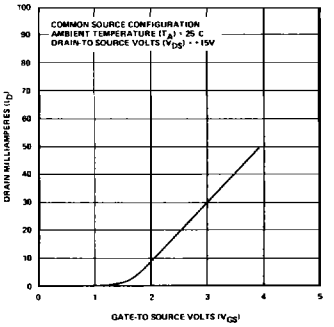
DRAIN CURRENT VS DRAIN-TO-SOURCE VOLTAGE



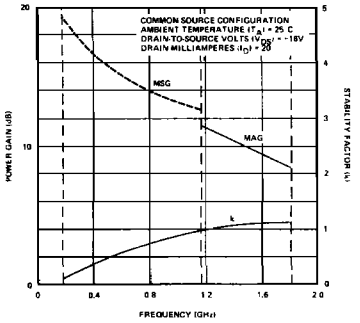
1kHz FORWARD TRANSCONDUCTANCE VS DRAIN CURRENT



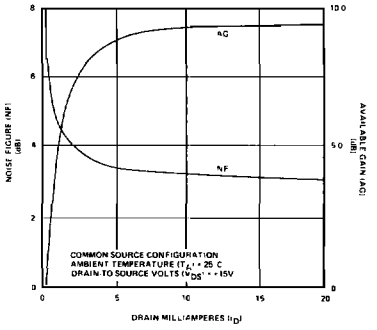
DRAIN CURRENT VS GATE-TO-SOURCE VOLTAGE



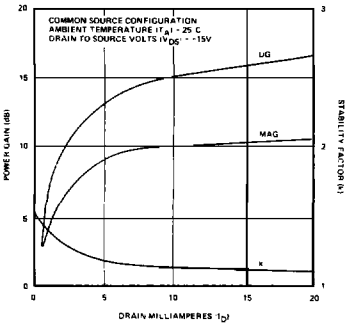
POWER GAIN VS FREQUENCY



1.0GHz NOISE FIGURE AND AVAILABLE GAIN VS DRAIN CURRENT

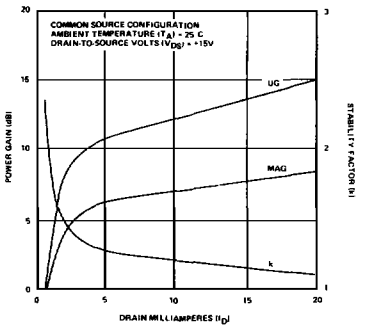


1.5GHz POWER GAIN VS DRAIN CURRENT



CHARACTERISTIC CURVES (Continued)

1.8GHz POWER GAIN VS DRAIN CURRENT

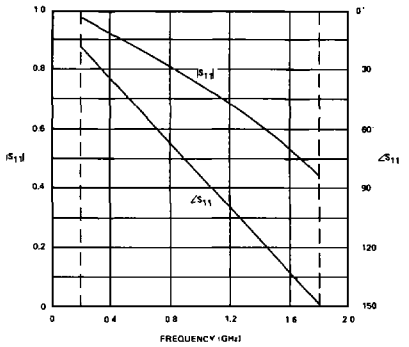


"S" PARAMETERS

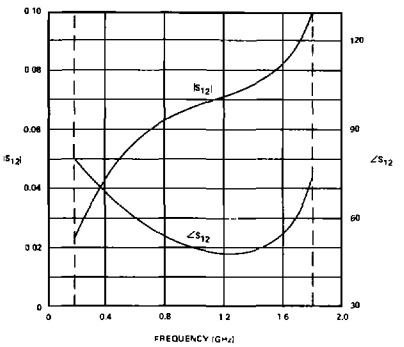
COMMON SOURCE CONFIGURATION
AMBIENT TEMPERATURE (T_A) = 25°C

DRAIN MILLIAMPERES (I_D) = 20
DRAIN-TO-SOURCE VOLTS (V_{DS}) =+15

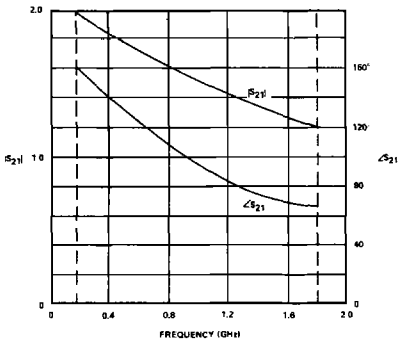
S11



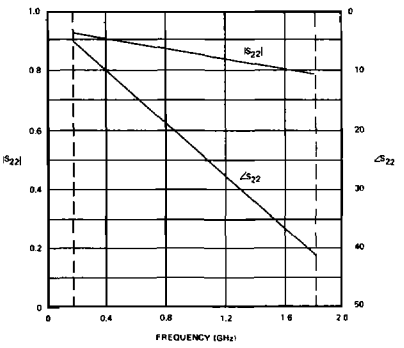
S12



S21

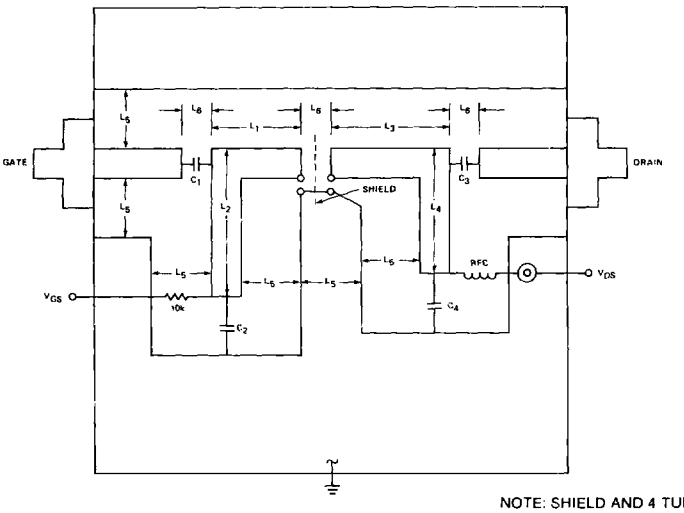


S22



ANALOG

1GHz NOISE FIGURE AND POWER GAIN TEST FIXTURE



DIALECTRIC IS 1/16" TEFLON-FIBERGLASS (3M-K6098-11)
ALL MICROSTRIP WIDTH = 0.175"

L1 = 0.48"
L2 = 1.52"
L3 = 0.64"
L4 = 1.36"
L5 = 5/16"
L6 = 1/8"

C1 = C2 = C3 = 0.8-10pF
Johanson 5201
C4 = 1.20pF
Johanson 5501
RFC = 10 TURNS 26 AWG ¼" DIA.
1000pF BYPASS
CORY FT4-01-2
LAUNCHERS—OSM248-2

NOTE: SHIELD AND 4 TUNABLE CAPACITORS ON GROUND PLANE SIDE OF AMPLIFIER