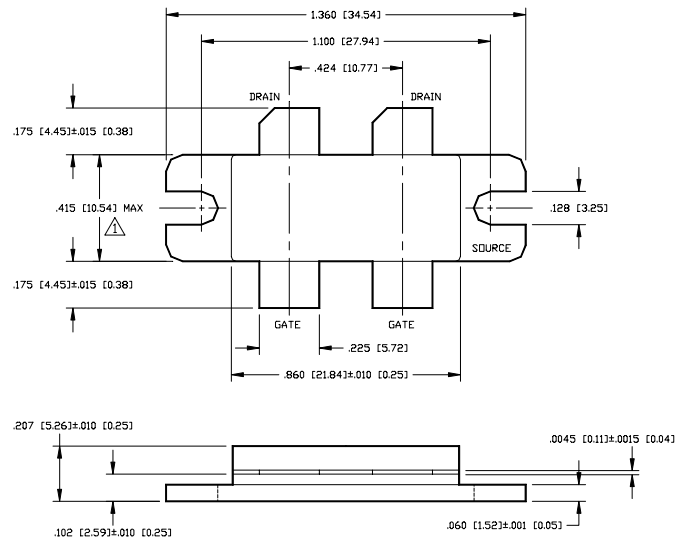


**UF28150J PRELIMINARY
POWER MOSFET TRANSISTOR
150 WATTS, 100 - 500 MHz, 28 V**

FEATURES

- N-Channel Enhancement Mode Device
- Applications
- 150 Watts CW
- Common Source Gemini Configuration
- RESFET Structure
- Internal Input Impedance Matching
- Gold Metallization

OUTLINE DRAWING



UNLESS OTHERWISE NOTED, TOLERANCES ARE
INCHES ±.005* (MILLIMETERS ±0.13MM)

NOTES:

△ CAP MISALIGNMENT OF .005" (0.13) MAXIMUM.
DIMENSION NOT INCLUDING EPOXY.

ABSOLUTE MAXIMUM RATINGS AT 25°C

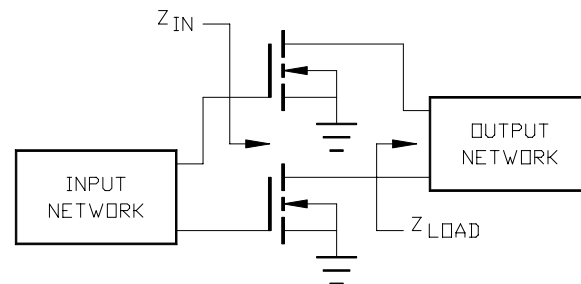
Parameter	Symbol	Rating	Units
Drain-Source Voltage	V_{DS}	60	V
Gate-Source Voltage	V_{GS}	20	V
Drain-Source Current	I_{DS}	28	A
Dissipation @25°C	P_D	233	W
Storage Temperature	T_{stg}	-55 to +150	°C
Junction Temperature	T_j	200	°C
Thermal Resistance	θ_{jc}	0.75	°C/W

ELECTRICAL CHARACTERISTICS AT 25°C (*per side)

Parameter	Symbol	Min	Max	Units	Test Conditions
Drain-Source Breakdown Voltage	BV_{DSS}	60	-	V	$I_D=40$ mA, $V_{GS}=0.0$ V*
Drain-Source Leakage Current	I_{DSS}	-	4.0	mA	$V_{DS}=28.0$ V, $V_{GS}=0.0$ V*
Gate-Source Leakage Current	I_{GSS}	-	2.0	μA	$V_{GS}=20$ V, $V_{DS}=0.0$ V*
Gate Threshold Voltage	$V_{GS(th)}$	2.0	6.0	V	$V_{DS}=10.0$ V, $I_{DS}=200$ mA*
Forward Transconductance	G_m	1.0	-	S	$V_{DS}=10.0$ V, $I_{DS}=2000$ mA (pulsed)*
Input Capacitance	C_{ISS}		200	pF	$V_{DS}=28.0$ V, $f=1.0$ MHz (Reference Only)*
Reverse Capacitance	C_{RSS}		50	pF	$V_{DS}=28.0$ V, $f=1.0$ MHz*
Output Capacitance	C_{OSS}		14	pF	$V_{DS}=28.0$ V, $f=1.0$ MHz*
Power Gain	G_p	10	-	dB	$V_{DD}=26$ V, $I_{DQ}=400$ mA, $P_{out}=80$ W, $F=960$ MHz
Collector Efficiency	η	50	-	%	$V_{DD}=26$ V, $I_{DQ}=400$ mA, $P_{out}=80$ W, $F=960$ MHz
Load Mismatch Tolerance	VSWR	-	3.0:1	-	$V_{DD}=26$ V, $I_{DQ}=400$ mA, $P_{out}=80$ W, $F=960$ MHz

TYPICAL OPTIMUM DEVICE IMPEDANCE

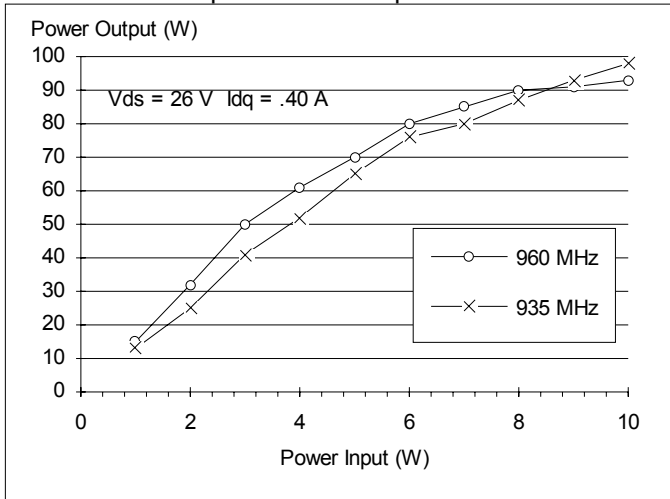
F (MHz)	Z_{in} (Ω)	Z_{load} (Ω)
935	$4.6 + j8.0$	$2.3 + j3.1$
960	$4.7 + j7.8$	$2.4 + j3.1$



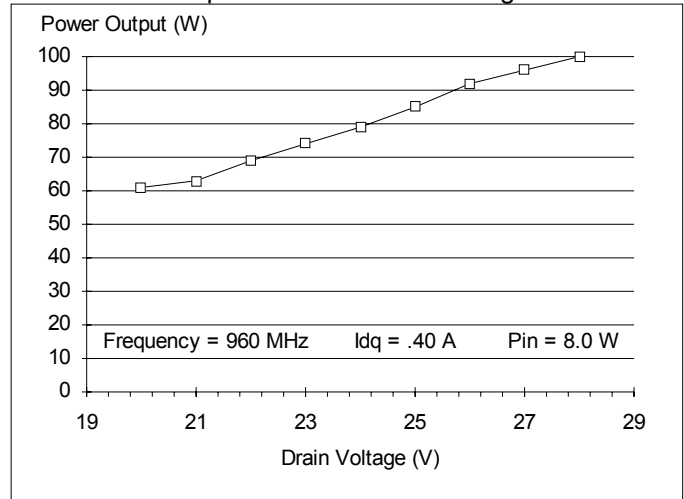
**M/A-COM POWER TRANSISTORS • 1742 CRENSHAW BLVD • TORRANCE, CA 90501
(310) 320-6160 • FAX (310) 618-9191**

TYPICAL BROADBAND PERFORMANCE CURVES - UF28150J

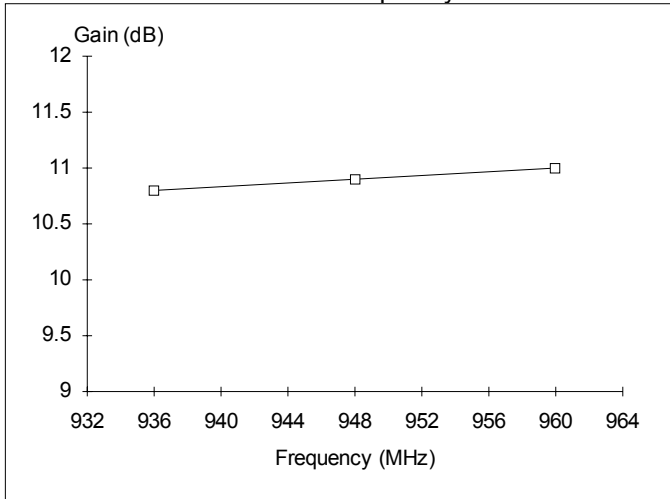
Output Power vs Input Power



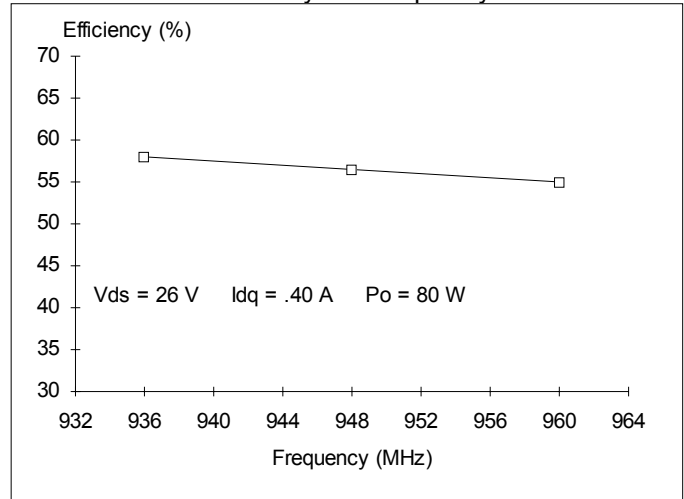
Output Power vs Drain Voltage



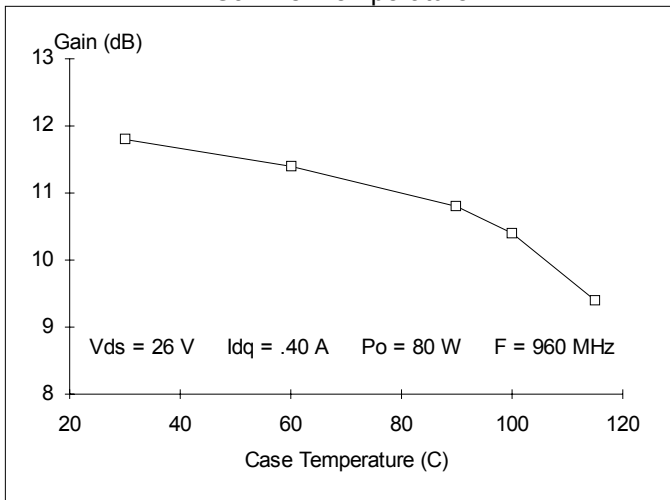
Gain vs. Frequency



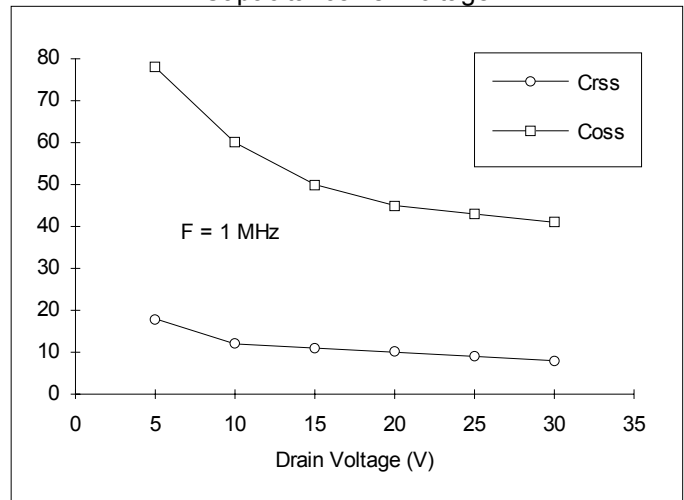
Efficiency vs. Frequency



Gain vs. Temperature



Capacitance vs. Voltage



M/A-COM POWER TRANSISTORS • 1742 CRENSHAW BLVD • TORRANCE, CA 90501
(310) 320-6160 • FAX (310) 618-9191

Typical Device Impedance

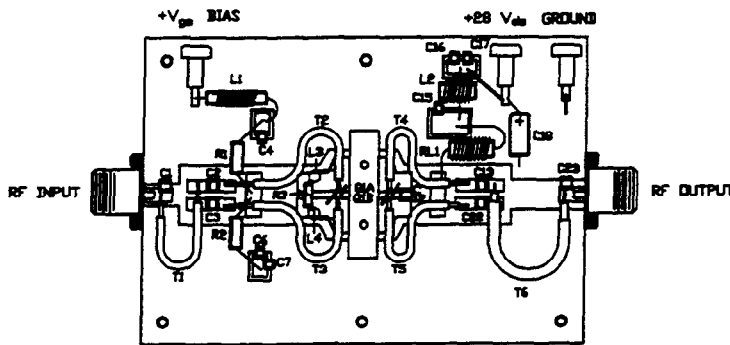
Frequency (MHz)	Z _{IN} (OHMS)	Z _{LOAD} (OHMS)
100	3.7 - j 5.9	3.0 - j 0.7
300	2.7 - j 5.8	2.6 - j 0.55
500	2.5 + j 2.9	2.5 - j 0.5

V_{DD}=28 V, I_{DD}=400 mA, P_{OUT}=150.0 Watts

Z_{IN} is the series equivalent input impedance of the device from gate to gate.

Z_{LOAD} is the optimum series equivalent load impedance as measured from drain to drain.

RF Test Fixture



Copyright Each Manufacturing Company.

All Datasheets cannot be modified without permission.

This datasheet has been download from :

www.AllDataSheet.com

100% Free DataSheet Search Site.

Free Download.

No Register.

Fast Search System.

www.AllDataSheet.com