VHF POWER MOSFET
N-Channel Enhancement Mode

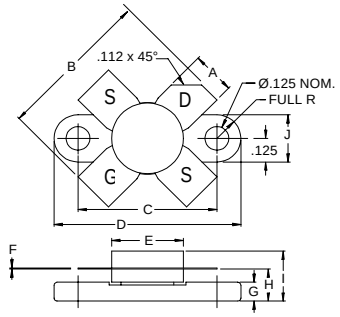
DESCRIPTION:

The **VFT80-28** is a gold metallized N-Channel Enhancement mode MOSFET, intended for use in 28 VDC large signal applications to 400 MHz.

FEATURES:

- P_G = 10 dB Typical at 175 MHz
- ***Omnigold***™ Metalization System
- Class-A or AB
- 2 – 400 MHz operation

PACKAGE STYLE .380 4L FLG



DIM	MINIMUM inches / mm	MAXIMUM inches / mm
A	.220 / 5.59	.230 / 5.84
B	.785 / 19.94	
C	.720 / 18.29	.730 / 18.54
D	.970 / 24.64	.980 / 24.89
E		.385 / 9.78
F	.004 / 0.10	.006 / 0.15
G	.085 / 2.16	.105 / 2.67
H	.160 / 4.06	.180 / 4.57
I		.280 / 7.11
J	.240 / 6.10	.255 / 6.48

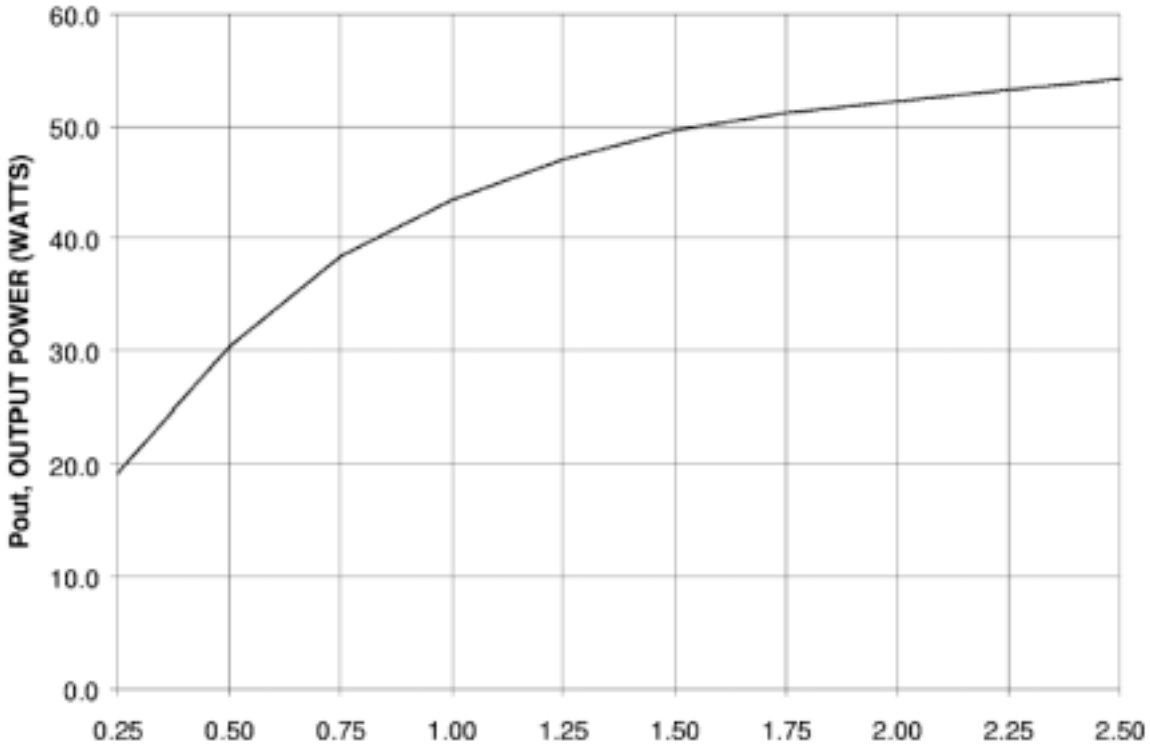
ORDER CODE: ASI10704

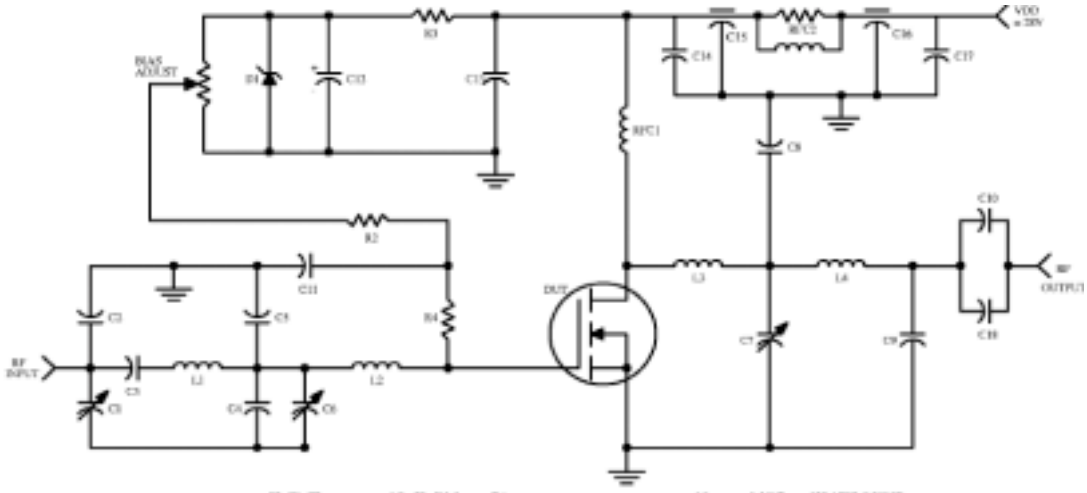
MAXIMUM RATINGS

I_D	7.0 A
$V_{(BR)DSS}$	60 V
V_{DGR}	60 V
V_{GS}	± 20 V
P_{DISS}	100 W @ T_C = 25 °C
T_J	-65 °C to +200 °C
T_{STG}	-65 °C to +150 °C
θ_{JC}	1.8 °C/W

CHARACTERISTICS T_C = 25 °C

SYMBOL	TEST CONDITIONS			MINIMUM	TYPICAL	MAXIMUM	UNITS
BV_{DSS}	I_{DS} = 10 Ma	V_{GS} = 0 V		60			V
I_{DSS}	V_{DS} = 28 V	V_{GS} = 0 V				5.0	mA
I_{GSS}	V_{DS} = 0 V	V_{GS} = 20 V				1.0	µA
V_{GS}	I_D = 25 mA	V_{DS} = 10 V		1.0		6.0	V
g_{fs}	I_D = 1 A	V_{DS} = 10 V		0.7			mho
C_{iss} C_{oss} C_{rss}	V_{DS} = 28 V	V_{GS} = 0 V	f = 1.0 MHz		52 87 8		pF
P_G η_D	V_{DD} = 28 V P_{IN} = 2.85 W	I_{DQ} = 25 mA	P_{out} = 45 W f = 175 MHz	12 50	14 60		dB %





C1, C6, C7	1.0 - 20 pF Johanson Trimmer	L2	1-1/4 Turns, #18 AWG, 0.25" ID
C2, C4, C5, C8	68 pF ATC Chip Capacitor (100 mils)	L4	2 Turns, #18 AWG, 0.25" ID, 0.19" Long
C3, C9, C14	680 pF ATC Chip Capacitor (100 mils)	RFC1	20 Turns, #28 AWG Enameled, 0.50" ID, Close Wound
C9	12 pF ATC Chip Capacitor (100 mils)	RFC2	19 Turns, #20 AWG Enameled, Wound On A 10 Ohm, Two (2) Watt Resistor
C11, C13, C14, C17	0.1 uF, 50V	R1	10 kOhm, Potentiometer
C12	39 uF, 50V	R3	10 kOhm, 1/4 Watt
C15, C16	680 pF Feed Through	R5	1.8 kOhm, 1/2 Watt
D1	1N4935A Motorola Zener Diode	R4	47 Ohm, 1/2 Watt
L1	2 Turns, #18 AWG, 0.3" ID, 0.3" Long		