VHF POWER MOSFET

N-Channel Enhancement Mode

DESCRIPTION:

The **VFT30-28** is a gold metallized N-Channel enhancement mode MOSFET, intended for use in 28VDC large signal applications up to 400MHz.

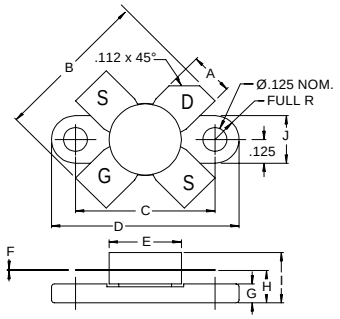
FEATURES:

- P_G = 14 dB Typ. at 30 W /175MHz
- **10:1 Load VSWR** Capability
- ***Omnigold***™ Metalization System

MAXIMUM RATINGS

I_D	5.0 A
$V_{(BR)DSS}$	65 V
V_{DGR}	65 V
V_{GS}	± 40 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}	1.75 °C/W

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

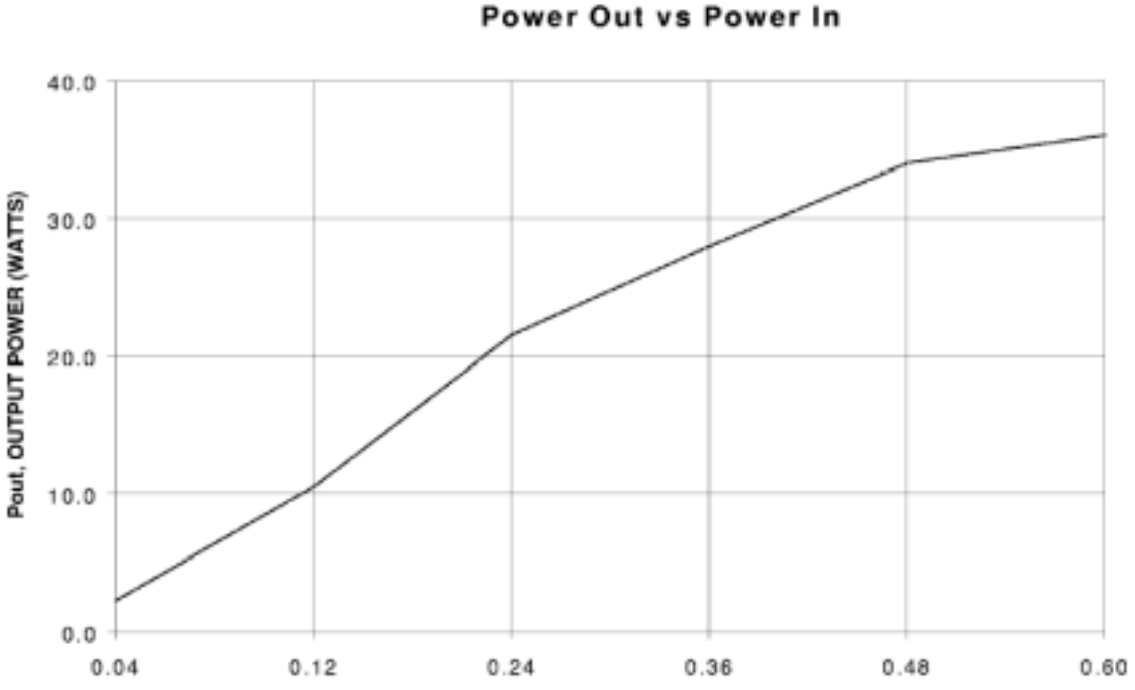
ORDER CODE: ASI10703

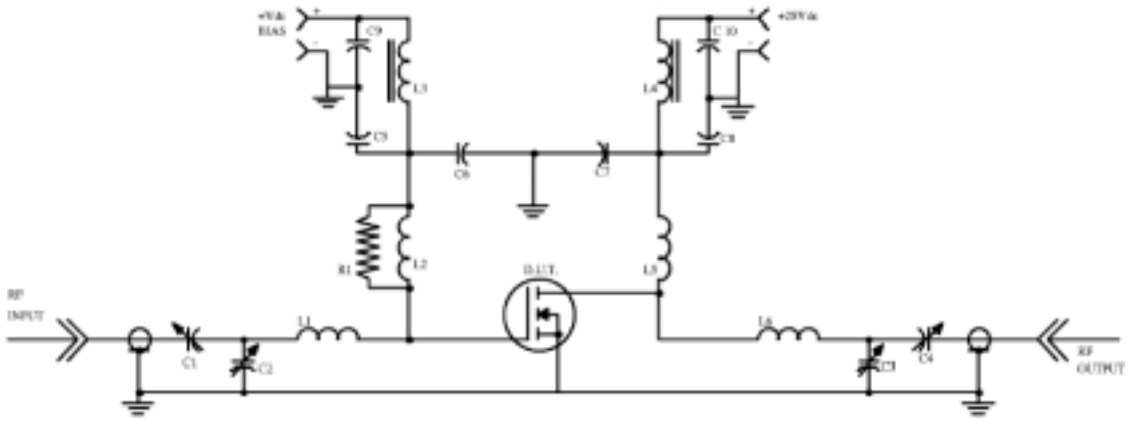
CHARACTERISTICS T_C = 25°C

SYMBOL	TEST CONDITIONS			MINIMUM	TYPICAL	MAXIMUM	UNITS
$V_{(BR)DSS}$	V_{GS} = 0 V	I_{DS} = 10 mA		60	---	---	**V**
I_{DSS}	V_{DS} = 28 V	V_{GS} = 0 V		---	---	4.0	**mA**
I_{GSS}	V_{DS} = 0 V	V_{GS} = 20 V		---	---	1.0	**µA**
V_{GS}	V_{DS} = 10 V	I_D = 25 mA		1.0	---	6.0	**V**
G_{FS}	V_{DS} = 10 V	I_D = 500 mA		0.5	---	---	**mho**
C_{iss} C_{oss} C_{rss}	V_{DS} = 28 V	V_{GS} = 0 V	f = 1.0 MHz		46 33 6.0		**pF**

CHARACTERISTICS T_C = 25°C

SYMBOL	TEST CONDITIONS			MINIMUM	TYPICAL	MAXIMUM	UNITS
P_G	V_{DD} = 28 V	I_{DQ} = 25 mA	P_{OUT} = 30 W	13	14		**dB**
η_D	P_{IN} = 1.5 W		f = 175 MHz	50	60		%





R1 56 Ohm, 1/2 Watt
C1 ARCO, #423 16pF - 100pF Variable Capacitor
C2 ARCO, #463 20pF - 180pF Variable Capacitor
C3 ARCO, #462 10pF - 80pF Variable Capacitor
C4 ARCO, #423 16pF - 100pF Variable Capacitor
C5 100pF, Chip Capacitor
C6 UNELCO, 100pF Chip Capacitor
C7 UNELCO, 100pF Chip Capacitor
C8 100pF, Chip Capacitor
C9 10uF, 63V Electrolytic Capacitor
C10 10uF, 63V Electrolytic Capacitor
L1 #20 AWG, 2 Turns, 0.25" ID, 19nH
L2 #20 AWG, 6 Turns, 0.25" ID,On R1, 206nH
L3 Fair-Rite P/N 2943666661
L4 Fair-Rite P/N 2943666661
L5 #20 AWG, 6 Turns, 0.25" ID, 206nH
L6 #20 AWG, 2 Turns, 0.25" ID, 17nH