

RF POWER FIELD-EFFECT TRANSISTOR

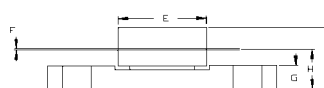
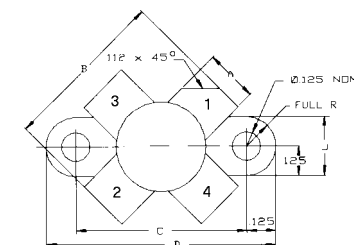
DESCRIPTION:

The **ASI MRF137** is a N-Channel Enhancement MOSFET, Designed for Wideband Large Signal Output and Driver Stage Applications up to 400 MHz.

MAXIMUM RATINGS

I_D	5.0 A
V_{DSS}	65 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



1 = DRAIN 2 = GATE
3 & 4 = SOURCE

	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

CHARACTERISTICS $T_C = 25\text{ }^{\circ}\text{C}$

SYMBOL	TEST CONDITIONS			MINIMUM	TYPICAL	MAXIMUM	UNITS
$V_{(BR)DSS}$	$I_D = 10 \text{ mA}$	$V_{GS} = 0 \text{ V}$		65			V
I_{DSS}	$V_{DS} = 28 \text{ V}$	$V_{GS} = 0 \text{ V}$				4.0	mA
I_{GSS}	$V_{DS} = 0 \text{ V}$	$V_{GS} = 20 \text{ V}$				1.0	μA
$V_{GS(th)}$	$I_D = 25 \text{ mA}$	$V_{DS} = 10 \text{ V}$		1.0	3.0	6.0	V
g_{fs}	$I_D = 500 \text{ mA}$	$V_{DS} = 10 \text{ V}$		500	750		mmhos
C_{iss} C_{oss} C_{rss}	$V_{DS} = 28 \text{ V}$	$V_{GS} = 0 \text{ V}$	$f = 1.0 \text{ MHz}$		48 11	45	pF
NF	$V_{DS} = 28 \text{ V}$	$I_D = 1.0 \text{ A}$	$f = 150 \text{ MHz}$		1.5		dB
G_{ps} η	$V_{DD} = 28 \text{ V}$ $I_{DQ} = 25 \text{ mA}$	$P_{out} = 30 \text{ W}$	$f = 150 \text{ MHz}$	12 50	16 60		dB %
ψ	$V_{DD} = 28 \text{ V}$ $I_{DQ} = 25 \text{ mA}$	$P_{out} = 30 \text{ W}$ VSWR 30:1 @ ALL PHASE ANGLES	$f = 150 \text{ MHz}$	NO DEGRADATION IN OUTPUT POWER			