

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 °C

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