

SILICON N-CHANNEL RF POWER MOSFET

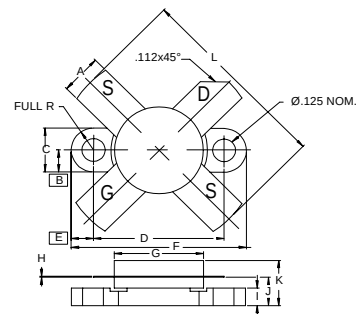
DESCRIPTION:

The **MRF161** is an Enhancement-Mode N-Channel MOS Broadband RF Power Transistor for Wideband Large Signal Amplifier and Oscillator Applications from 2.0 to 400 MHz.

MAXIMUM RATINGS

I_D	900 mA
V_{DSS}	65 V
V_{GS}	± 40 V
P_{DISS}	17.5 W @ $T_C = 25^\circ\text{C}$
T_J	-65°C to $+200^\circ\text{C}$
T_{STG}	-65°C to $+150^\circ\text{C}$
θ_{JC}	10°C/W

PACKAGE STYLE .500 4L FLG



DIM	MINIMUM inches / mm	MAXIMUM inches / mm
A	.220 / 5.59	.230 / 5.84
B	.125 / 3.18	
C	.245 / 6.22	.255 / 6.48
D	.720 / 18.28	.730 / 18.54
E	.125 / 3.18	
F	.970 / 24.64	.980 / 24.89
G	.495 / 12.57	.505 / 12.83
H	.003 / 0.08	.007 / 0.18
I	.090 / 2.29	.110 / 2.79
J	.150 / 3.81	.175 / 4.45
K		.280 / 7.11
L	.980 / 24.89	1.050 / 26.67

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

SYMBOL	TEST CONDITIONS	MINIMUM	TYPICAL	MAXIMUM	UNITS
$V_{(BR)DSS}$	$I_D = 5.0$ mA $V_{GS} = 0$ V	65			V
I_{DSS}	$V_{DSS} = 28$ V $V_{GS} = 0$ V			1.0	mA
I_{GSS}	$V_{GS} = 40$ V $V_{DS} = 0$ V			1.0	μA
$V_{GS(th)}$	$V_{DS} = 10$ V $I_D = 10$ mA	1.0		6.0	V
g_{fs}	$V_{DS} = 10$ V $I_D = 100$ mA	80			mmhos
C_{iss} C_{oss} C_{rss}	$V_{DS} = 28$ V $V_{GS} = 0$ V $f = 1.0$ MHz		7.0 9.7 2.3		pF
NF	$V_{DS} = 28$ V $I_D = 100$ mA $f = 400$ MHz $Z_S = 67.7+j = 14.1$ $Z_L = 14.5+j = 25.7$		3.0		dB
G_{ps} η	$V_{DD} = 28$ V $I_{DQ} = 50$ mA $P_{out} = 5.0$ W	11.0 45	13.5 50		dB %
ψ	$V_{DD} = 28$ V $I_{DQ} = 50$ mA $P_{out} = 5.0$ W $V_{SWR} = 30:1$ AT ALL PHASE ANGLES	NO DEGRADATION IN OUTPUT POWER			