

MRF138

VHF POWER MOSFET

N-Channel Enhancement Mode

DESCRIPTION:

MRF138 is a N-Channel enhancement mode MOSFET, intended for use in 28V applications up to 175 MHz.

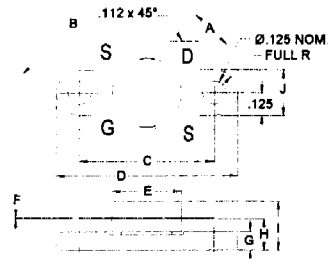
FEATURES:

- $P_G = 17$ dB Typ. at 30 W /30MHz
- 30:1 Load VSWR Capability
- **Omnigold™** Metalization System

MAXIMUM RATINGS

I_D	6.0 A
$V_{(BR)DSS}$	65 V
V_{DGR}	65 V
V_{GS}	± 40 V
P_{DISS}	115 W @ $T_C = 25^\circ C$
T_J	$-65^\circ C$ to $+200^\circ C$
T_{STG}	$-65^\circ C$ to $+150^\circ C$
θ_{JC}	1.52 $^\circ C/W$

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

CHARACTERISTICS $T_C = 25^\circ C$

SYMBOL	TEST CONDITIONS			MINIMUM	TYPICAL	MAXIMUM	UNITS
$V_{(BR)DSS}$	$V_{GS} = 0$ V	$I_{DS} = 10$ mA		65	---	---	V
I_{DSS}	$V_{DS} = 28$ V	$V_{GS} = 0$ V		---	---	5.0	mA
I_{GSS}	$V_{DS} = 0$ V	$V_{GS} = 20$ V		---	---	0.1	μA
$V_{GS(th)}$	$V_{DS} = 10$ V	$I_D = 10$ mA		1.0	---	6.0	V
G_{FS}	$V_{DS} = 10$ V	$I_D = 2.5$ mA		0.8	---	---	mho
C_{iss} C_{oss} C_{rss}	$V_{DS} = 28$ V	$V_{GS} = 0$ V	$f = 1.0$ MHz		55 70 14		pF
P_G η_D	$V_{DD} = 28$ V $P_{IN} = 1.5$ W	$I_{DQ} = 100$ mA	$P_{OUT} = 30$ W $f = 175$ MHz		17 40		dB %

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