

# VHF POWER MOSFET

## N-Channel Enhancement Mode

**DESCRIPTION:**

The **ASI MRF172** is Designed for wideband large-signal output and driver stages in the 2.0-200 MHz frequency range.

**FEATURES:**

- $P_G = 10$  dB Min. at 150 MHz
- **30:1 Load VSWR** Capability
- **Omnigold™** Metalization System

**MAXIMUM RATINGS**

$I_D$	9.0 A
$V_{DSS}$	65 V
$V_{GS}$	$\pm 40$ V
$P_{DISS}$	220 W @ $T_C = 25^\circ\text{C}$
$T_J$	$-65^\circ\text{C}$ to $+200^\circ\text{C}$
$T_{STG}$	$-65^\circ\text{C}$ to $+150^\circ\text{C}$
$\theta_{JC}$	0.8 $^\circ\text{C/W}$

**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

**ORDER CODE: ASI10830**

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

SYMBOL	TEST CONDITIONS	MINIMUM	TYPICAL	MAXIMUM	UNITS
$BV_{DSS}$	$I_{DS} = 50$ 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			1.0	$\mu\text{A}$
$V_{GS(th)}$	$I_D = 50$ mA $V_{DS} = 10$ V	1.0		5.0	V
$g_{fs}$	$I_D = 2.5$ A $V_{DS} = 10$ V	1.5			mho
$C_{iss}$ $C_{oss}$ $C_{rss}$	$V_{DS} = 28$ V $V_{GS} = 0$ V $f = 1.0$ MHz		200 110 20		pF
$P_G$ $\eta_D$	$V_{DD} = 28$ V $I_{DQ} = 50$ mA $P_{out} = 80$ W $f = 150$ MHz	10 50			dB %
$\psi$	$V_{SWR} = 30:1$ AT ALL PHASE ANGLES	NO DEGRADATION IN OUTPUT POWER			