NPN SILICON RF POWER TRANSISTOR

DESCRIPTION:

The **ASI MRF374** is Designed for broadband commercial and industrial applications in 470 to 860 MHz band.

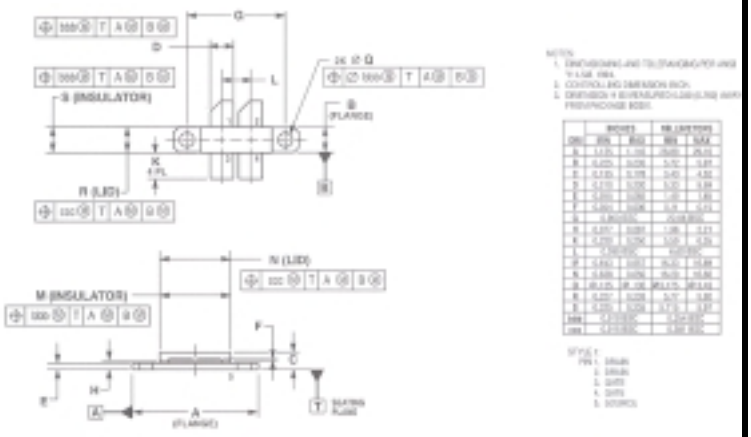
FEATURES:

- P_G = 13.5 dB typ. at 100 W/875 MHz
- η_D = 36 % Typical
- ***Omnigold***™ Metalization System

MAXIMUM RATINGS

I_D	7.0 A
V_{DSS}	65 V
V_{GS}	±20 V
P_{DISS}	270 W @ T_C = 25 °C
T_J	-65 °C to +200 °C
T_{STG}	-65 °C to +150 °C
θ_{JC}	0.65 °C/W

PACKAGE STYLE .230 BAL FLG.

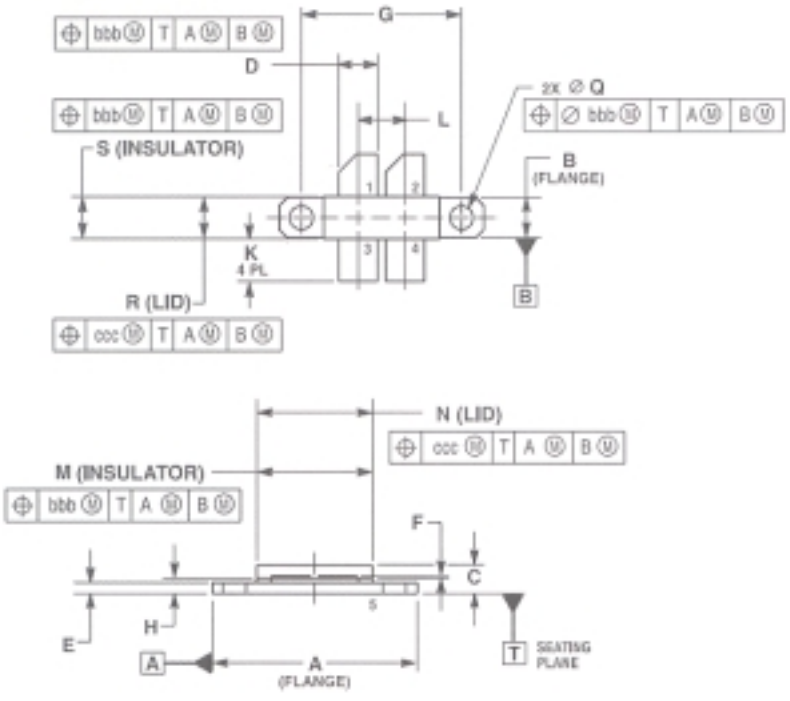


CHARACTERISTICS T_C = 25 °C

SYMBOL	TEST CONDITIONS		MINIMUM	TYPICAL	MAXIMUM	UNITS
V_{DSS}	I_{DS} = 1.0 µA		65			V
I_{DSS}	V_{DS} = 28 V				1.0	µA
I_{GSS}	V_{GS} = 20 V				1.0	µA
$V_{GS(th)}$	V_{DS} = 10 V	I_D = 200 µA	2.0	3.5	4.0	V
$V_{GS}(Q)$	V_{DS} = 28 V	I_D = 100 mA	3.0	4.2	5.0	V
$V_{DS(ON)}$	V_{DS} = 10 V	I_D = 3.0 A		0.56	0.8	V
G_{FS}	V_{DS} = 10 V	I_D = 3.0 A	2.2	2.8		S

CHARACTERISTICS T_C = 25 °C

SYMBOL	TEST CONDITIONS	MINIMUM	TYPICAL	MAXIMUM	UNITS
C_{ISS}	V_{DS} = 28 V V_{GS} = 0 V f = 1.0 MHz		80		pF
C_{OSS}			45		
C_{RSS}			3.5		
P_G	V_{DD} = 28 V I_{DQ} = 400 mA P_{OUT} = 100 W f1 = 857 MHz, f2 = 863 MHz	12.5	13.5		dB
η_D		30	36		%
IMD		-28	-31		dB
VSWR			5:1		---
P_G	V_{DD} = 28 V I_{DQ} = 500 mA P_{OUT} = 100 W f1 = 857 MHz, f2 = 863 MHz		12		dB
η_D			36		%
IMD			-34		dB



NOTES:
1. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M, 1994.
2. CONTROLLING DIMENSION: INCH.
3. DIMENSION H IS MEASURED 0.030 (0.762) AWAY FROM PACKAGE BODY.

DIM	INCHES MIN	INCHES MAX	MILLIMETERS MIN	MILLIMETERS MAX
A	1.125	1.140	28.80	29.10
B	0.225	0.230	5.72	5.97
C	0.135	0.178	3.43	4.52
D	0.215	0.220	5.33	5.59
E	0.055	0.065	1.40	1.65
F	0.004	0.006	0.11	0.15
G	3.960 BSC		22.86 BSC	
H	0.077	0.087	1.96	2.21
K	0.220	0.250	5.59	6.35
L	0.768 BSC		6.60 BSC	
M	0.643	0.657	16.33	16.69
N	0.638	0.650	16.20	16.68
Q	Ø .125	Ø .135	Ø3.175	Ø 3.43
R	0.227	0.233	5.77	5.92
S	0.223	0.230	5.715	5.97
bbb	0.010 BSC		0.254 BSC	
ccc	0.015 BSC		0.381 BSC	

STYLE 1:
PIN 1. DRAIN
2. DRAIN
3. GATE
4. GATE
5. SOURCE