

NPN SILICON RF POWER TRANSISTOR

DESCRIPTION:

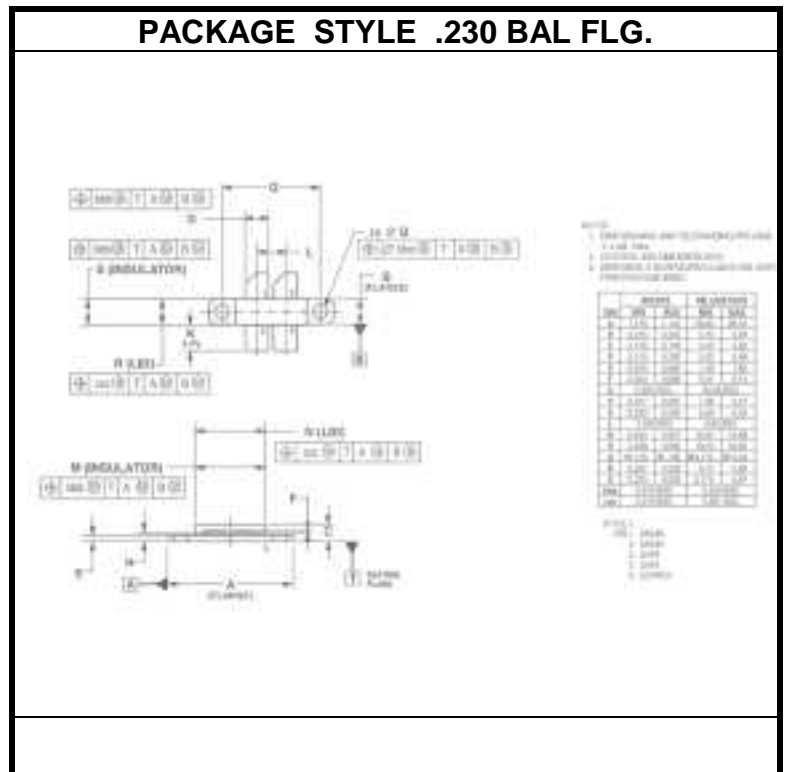
The **ASI MRF374** is Designed for broadband commercial and industrial applications in 470 to 860 MHz band.

FEATURES:

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

MAXIMUM RATINGS

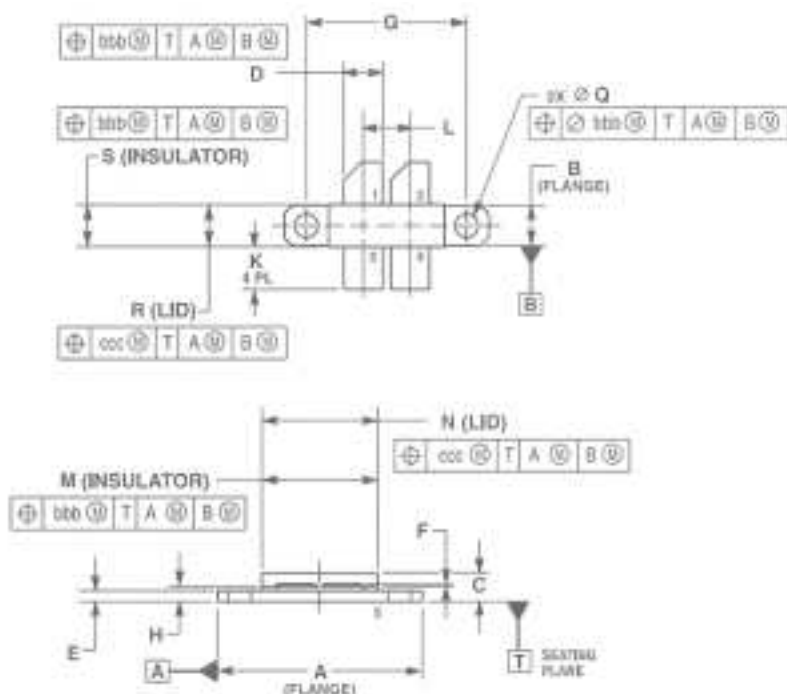
I_D	7.0 A
V_{DSS}	65 V
V_{GS}	± 20 V
P_{DISS}	270 W @ $T_C = 25$ °C
T_J	-65 °C to +200 °C
T_{STG}	-65 °C to +150 °C
θ_{JC}	0.65 °C/W


CHARACTERISTICS $T_C = 25$ °C

SYMBOL	TEST CONDITIONS		MINIMUM	TYPICAL	MAXIMUM	UNITS
V_{DSS}	$I_{DS} = 1.0$ μ A		65			V
I_{DSS}	$V_{DS} = 28$ V				1.0	μ A
I_{GSS}	$V_{GS} = 20$ V				1.0	μ A
$V_{GS(th)}$	$V_{DS} = 10$ V	$I_D = 200$ μ A	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 $T_C = 25^\circ\text{C}$

SYMBOL	TEST CONDITIONS			MINIMUM	TYPICAL	MAXIMUM	UNITS
C_{ISS} C_{OSS} C_{RSS}	$V_{DS} = 28\text{ V}$	$V_{GS} = 0\text{ V}$	$f = 1.0\text{ MHz}$		80 45 3.5		pF
P_G η_D IMD VSWR	$V_{DD} = 28\text{ V}$ $f_1 = 857\text{ MHz}, f_2 = 863\text{ MHz}$	$I_{DQ} = 400\text{ mA}$	$P_{OUT} = 100\text{ W}$	12.5 30 -28	13.5 36 -31		dB % dB ---
P_G η_D IMD	$V_{DD} = 28\text{ V}$ $f_1 = 857\text{ MHz}, f_2 = 863\text{ MHz}$	$I_{DQ} = 500\text{ mA}$	$P_{OUT} = 100\text{ W}$		12 36 -34		dB % dB



- NOTES
1. DIMENSIONS AND TOLERANCES PER ANSI Y14.5M-1994.
 2. CONTROL SURF DIMENSION BOLD.
 3. DIMENSION H IS MEASURED 0.005 INCH AWAY FROM PACKAGE BODY.

DIM	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.125	1.156	3.175	29.32
B	0.075	0.625	1.915	5.97
C	0.200	0.172	5.08	4.37
D	0.212	0.420	5.39	10.67
E	0.050	0.085	1.27	2.16
F	0.024	0.095	0.61	2.41
G	0.002 BSC		0.05 BSC	
H	0.077	0.087	1.96	2.21
K	0.010	0.020	0.25	0.51
L	0.165 BSC		4.19 BSC	
M	0.047	0.057	1.19	1.45
N	0.030	0.050	0.76	1.27
O	0.020	0.130	0.51	3.30
P	0.020	0.020	0.51	0.51
S	0.020	0.020	0.51	0.51
MIN	0.015 BSC		0.38 BSC	
MAX	0.015 BSC		0.38 BSC	

- SYMBOLS
1. TRAIL
 2. TRAIL
 3. GATE
 4. GATE
 5. SOURCE