

NPN SILICON RF POWER TRANSISTOR

DESCRIPTION:

The **ASI MLN2037F** is Designed for Class A Linear Applications up to 2.0 GHz.

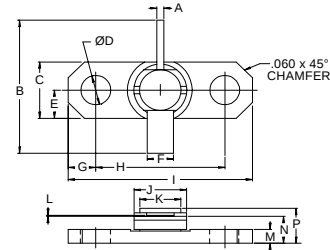
FEATURES:

- Class A Operation
- $P_G = 5.0$ dB at 5.0 W/2.0 GHz
- **Omnigold™** Metalization System
- Common Emitter

MAXIMUM RATINGS

I_C	10 A
V_{CB}	60 V
V_{CE}	35 V
P_{DISS}	140 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}	5.5 $^\circ\text{C/W}$

PACKAGE STYLE .250 2L FLG



DIM	MINIMUM inches / mm	MAXIMUM inches / mm
A	.028 / 0.71	.032 / 0.81
B	.740 / 18.80	
C	.245 / 6.22	.255 / 6.48
D	.128 / 3.25	.132 / 3.35
E	.125 / 3.18	
F	.110 / 2.79	.117 / 2.97
G	.117 / 2.97	
H	.560 / 14.22	.570 / 14.48
I	.790 / 20.07	.810 / 20.57
J	.225 / 5.72	.235 / 5.97
K	.165 / 4.19	.185 / 4.70
L	.003 / 0.08	.007 / 0.18
M	.058 / 1.47	.068 / 1.73
N	.119 / 3.02	.135 / 3.43
P	.149 / 3.78	.187 / 4.75

ORDER CODE: ASI10635

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

SYMBOL	TEST CONDITIONS	MINIMUM	TYPICAL	MAXIMUM	UNITS
BV_{CEO}	$I_C = 50$ mA	35			V
BV_{CER}	$I_C = 50$ mA $R_{BE} = 10 \Omega$	60			V
BV_{EBO}	$I_E = 10$ mA	4.0			V
I_{CES}	$V_E = 28$ V			5	mA
h_{FE}	$V_{CE} = 5.0$ V $I_C = 1.0$ A	10		100	---
C_{ob}	$V_{CB} = 28$ V $f = 1.0$ MHz			15	pF
P_G	$V_{CE} = 20$ V $I_{CQ} = 800$ mA $f = 2.0$ GHz $P_{OUT} = 5.0$ W	5.0			dB



TYPICAL S PARAMETERS:

$Z_O = 50\ \Omega$ $V_{CE} = 15\ V$, $I_C = 160\ mA$, $T_A = 25^\circ C$

FREQ.	S21			S12		S11		S22	
	GHz	dB	Mag	Ang	Mag	Ang	Mag	Ang	Mag
0.20	16.40	6.60	90	0.0281	42	0.8709	-173	0.2511	-138
0.50	9.00	2.81	71	0.0467	52	0.8709	170	0.4027	-144
1.00	5.20	1.81	55	0.0944	63	0.8128	156	0.3801	-136
1.50	1.40	1.17	42	0.1548	62	0.7673	141	0.5888	-139
2.00	-0.60	0.93	24	0.2344	52	0.7762	112	0.6998	-171