

# NPN SILICON RF POWER TRANSISTOR

**DESCRIPTION:**

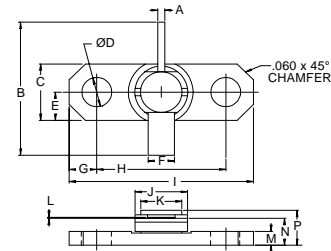
The **ASI MLN2027F** is Designed for Class A Linear Applications up to 2.0 GHz.

**FEATURES:**

- Class A Operation
- $P_G = 8.0$  dB at 0.5 W/2.0 GHz
- **Omnigold™** Metalization System

**MAXIMUM RATINGS**

$I_C$	300 mA
$V_{CE}$	20 V
$P_{DISS}$	--- W
$T_J$	-65 °C to +200 °C
$T_{STG}$	-65 °C to +200 °C
$\theta_{JC}$	25 °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: ASI10630**
**CHARACTERISTICS**  $T_C = 25$  °C

SYMBOL	TEST CONDITIONS		MINIMUM	TYPICAL	MAXIMUM	UNITS
$BV_{CBO}$	$I_C = 1.0$ mA		50			V
$BV_{CEO}$	$I_C = 5.0$ mA		20			V
$BV_{EBO}$	$I_E = 1.0$ mA		3.5			V
$I_{CEO}$	$V_{CE} = 18$ V				0.5	mA
$h_{FE}$	$V_{CE} = 5.0$ V	$I_C = 100$ mA	15		120	---
$C_{OB}$	$V_{CB} = 28$ V	$f = 1.0$ MHz			4.0	pF
$P_G$	$V_{CE} = 20$ V $P_{OUT} = 0.5$ W	$I_{CQ} = 120$ mA $f = 2.0$ GHz	8.0			dB

**TYPICAL S PARAMETERS:** $Z_0 = 50 \Omega$ ,  $V_{CE} = 15 V$ ,  $I_C = 160 mA$ ,  $T_A = 25^\circ C$ 

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