

NPN SILICON RF POWER TRANSISTOR

DESCRIPTION:

The **ASI HF100-12** is a 12.5 V Class-C epitaxial planar transistor designed primarily for HF communications. This device utilizes state of the art diffused Emitter Ballasting to achieve extreme ruggedness under severe operating conditions.

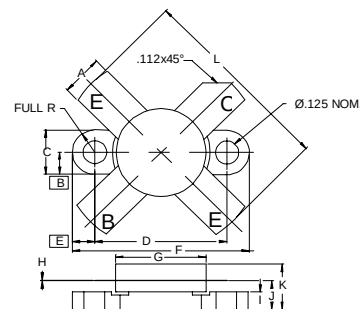
FEATURES:

- $P_G = 13$ Typ. min. at 100 W/30 MHz
- $IMD_3 = -30$ dBc max. at 100 W_(PEP)
- **Omnigold™** Metalization System

MAXIMUM RATINGS

I_C	20 A
V_{CBO}	36 V
V_{CEO}	18 V
V_{EBO}	4.0 V
P_{DISS}	290 W @ $T_C = 25^\circ C$
T_J	$-65^\circ C$ to $+200^\circ C$
T_{STG}	$-65^\circ C$ to $+150^\circ C$
θ_{JC}	0.6 $^\circ C/W$

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: ASI10599

CHARACTERISTICS $T_C = 25^\circ C$

SYMBOL	TEST CONDITIONS	MINIMUM	TYPICAL	MAXIMUM	UNITS
BV_{CBO}	$I_C = 100$ mA	36			V
BV_{CES}	$I_C = 100$ mA	36			V
BV_{CEO}	$I_C = 100$ mA	18			V
BV_{EBO}	$I_E = 10$ mA	4.0			V
I_{CES}	$V_{CE} = 15$ V			20	mA
h_{FE}	$V_{CE} = 5.0$ V $I_C = 5.0$ A	10		200	---
C_{OB}	$V_{CB} = 12.5$ V $f = 1.0$ MHz		400		pF

ADVANCED SEMICONDUCTOR, INC.

REV. B

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Specifications are subject to change without notice.



G_p	V_{CE} = 12.5 V	I_{CQ} = 150 mA	f = 30 MHz	11	13		dB
IMD₃	V_{CE} = 12.5 V	I_{CQ} = 150 mA	P_{OUT} = 100 W			-30	dBc