

# NPN SILICON RF POWER TRANSISTOR

**DESCRIPTION:**

The ASI HF100-12 is Designed for

**FEATURES:**

- $P_G = 12$  dB 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 $+150^\circ C$
$q_{JC}$	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
$G_P$	$V_{CE} = 12.5$ V $I_{CQ} = 150$ mA $f = 30$ MHz	11	13		dB
$IMD_3$	$V_{CE} = 12.5$ V $I_{CQ} = 150$ mA $P_{OUT} = 100$ W			-30	dBc