

NPN SILICON RF POWER TRANSISTOR

DESCRIPTION:

The **ASI HF50-12F** is a 12.5 V Class C epitaxial silicon NPN transistor designed primarily for land mobile transmitter applications. This device utilizes emitter ballasting, is extremely suitable and capable of withstanding high VSRW under operating conditions.

FEATURES:

- $P_G = 16$ dB min. at 50 W/30 MHz
- $IMD_3 = -30$ dBc max. at 50 W(PEP)
- **Omnigold™** Metalization System

MAXIMUM RATINGS

I_C	12.0 A
V_{CBO}	45 V
V_{CEO}	18 V
V_{EBO}	3.5 V
P_{DISS}	183 W @ $T_C = 25^\circ C$
T_J	-65 °C to +200 °C
T_{STG}	-65 °C to +150 °C
θ_{JC}	1.05 °C/W

PACKAGE STYLE .380 4L FLG

DIM	MINIMUM inches / mm	MAXIMUM inches / mm
A	.220 / 5.59	.230 / 5.84
B	.785 / 19.94	
C	.720 / 18.29	.730 / 18.54
D	.970 / 24.64	.980 / 24.89
E		.385 / 9.78
F	.004 / 0.10	.006 / 0.15
G	.085 / 2.16	.105 / 2.67
H	.160 / 4.06	.180 / 4.57
I		.280 / 7.11
J	.240 / 6.10	.255 / 6.48

ORDER CODE: ASI10596

CHARACTERISTICS $T_C = 25^\circ C$

SYMBOL	TEST CONDITIONS	MINIMUM	TYPICAL	MAXIMUM	UNITS
BV_{CBO}	$I_C = 50$ mA	45			V
BV_{CES}	$I_C = 100$ mA	40			V
BV_{CEO}	$I_C = 50$ mA	18			V
BV_{EBO}	$I_E = 10$ mA	3.5			V
I_{CES}	$V_{CE} = 15$ V			10	mA
h_{FE}	$V_{CE} = 5.0$ V $I_C = 5.0$ A	10		---	---



C_{OB}	V _{CB} = 12.5 V	f = 1.0 MHz			300	pF
G_P	V _{CE} = 12.5 V	P _{IN} = 5.0 W	f = 30 MHz	10		dB
η_C	P _{OUT} = 50 W(PEP)				55	%