NPN SILICON RF POWER TRANSISTOR

DESCRIPTION:

The **ASI HF220-28** is 28 V epitaxial planar transistor, designed for SSB and VHF communications. The device utilizes emitter ballasting for improved ruggedness and reliability.

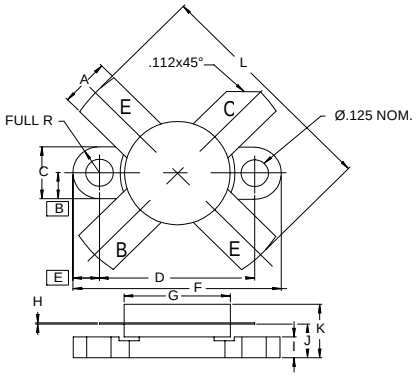
FEATURES:

- P_G = 12 dB min. at 220 W/30 MHz
- IMD_3 = -30 dBc max. at 220 W(PEP)
- ***Omnigold***™ Metalization System
- 30 MHz @ 28 V operations
- IMD –30 dBc

MAXIMUM RATINGS

I_C	16 A
V_{CBO}	70 V
V_{CEO}	35 V
V_{EBO}	4.0 V
P_{DISS}	320 W @ T_C = 25 °C
T_J	-65 °C to +200 °C
T_{STG}	-65 °C to +150 °C
θ_{JC}	0.6 °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	.7.30 / 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: ASI10609

CHARACTERISTICS T_C = 25 °C

SYMBOL	TEST CONDITIONS	MINIMUM	TYPICAL	MAXIMUM	UNITS
BV_{CEO}	I_C = 200 mA	35			V
BV_{CES}	I_C = 100 mA	70			V
BV_{EBO}	I_E = 20 mA	4.0			V
I_{CEO}	V_{CE} = 30 V			5.0	mA
I_{CES}	V_{CE} = 35 V			5.0	mA
h_{FE}	V_{CE} = 5.0 V I_C = 7.0 A	15		60	---
C_{OB}	V_{CB} = 28 V f = 1.0 MHz	---	450	---	pF

CHARACTERISTICS T_C = 25 °C

G_P	V_{CE} = 28 V I_{CQ} = 750 mA P_{OUT} = 220 W	12	---	-30	**dB**
IMD_3	F_1 = 30.000MHz f_2 = 30.001 MHz				**dBc**
η_C		40			%
Load Mismatch	V_{CE} = 28 V I_{CQ} = 750 mA P_{OUT} = 220 W	---	∞:1	---	**VSWR**

IMPEDANCE DATA

FREQ	Z_{IN} (Ω)	Z_{CL} (Ω)
30 MHz	1.15 + J0.41	1.25 + J1.92