NPN SILICON RF POWER TRANSISTOR

DESCRIPTION:

The **ASI HF50-12S** 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.

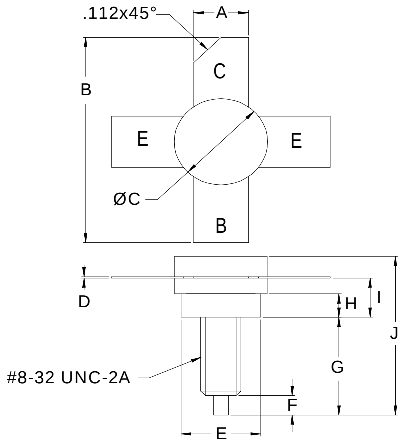
FEATURES:

- **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 °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 STUD



DIM	MINIMUM inches / mm	MAXIMUM inches / mm
A	.220 / 5.59	.230 / 5.84
B	.980 / 24.89	
C	.370 / 9.40	.385 / 9.78
D	.004 / 0.10	.007 / 0.18
E	.320 / 8.13	.330 / 8.38
F	.100 / 2.54	.130 / 3.30
G	.450 / 11.43	.490 / 12.45
H	.090 / 2.29	.100 / 2.54
I	.155 / 3.94	.175 / 4.45
J		.750 / 19.05

ORDER CODE: ASI10597

CHARACTERISTICS T_C = 25 °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		**%**