NPN SILICON RF POWER TRANSISTOR

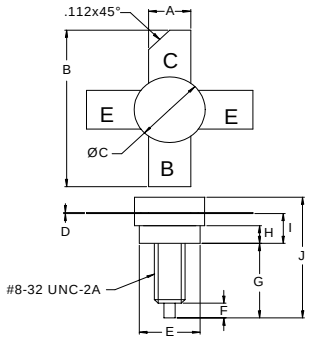
DESCRIPTION:

The **ASI VHB50-28S** is an NPN power transistor designed for 25 V Class-C ground station transmitters, it utilizes emitter ballasting and gold metalization to provide optimum VSWR capability.

FEATURES:

- Common Emitter
- P_G = 6.0 dB at 50 W/175 MHz
- ***Omnigold***™ Metalization System
- P_G = 7.0 dB at 60 W/150 MHz

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: ASI10730

MAXIMUM RATINGS

I_C	6.5 A
V_{CBO}	65 V
V_{CEO}	35 V
V_{EBO}	4.0 V
P_{DISS}	75W
T_J	-65 °C to +200 °C
T_{STG}	-65 °C to +150 °C
θ_{JC}	2.3 °C/W

CHARACTERISTICS T_C = 25 °C

SYMBOL	TEST CONDITIONS	MINIMUM	TYPICAL	MAXIMUM	UNITS
BV_{CEO}	I_C = 200 mA	35			V
BV_{CES}	I_C = 200 mA	65			V
BV_{EBO}	I_E = 10 mA	4.0			V
I_{CBO}	V_{CB} = 30 V			2.0	mA
h_{FE}	V_{CE} = 5.0 V I_C = 500 mA	10		150	---
C_{ob}	V_{CB} = 28 V f = 1.0 MHz			80	pF

CHARACTERISTICS T_C = 25 °C

SYMBOL	TEST CONDITIONS			MINIMUM	TYPICAL	MAXIMUM	UNITS
P_G	V_{CE} = 28 V	P_{OUT} =50 W	f = 175 MHz	6.0			dB
η_C	P_{IN} = 12 W				60		%

IMPEDANCE DATA

FREQ	Z_{IN} (Ω)	Z_{CL} (Ω)
150 MHz	1.0 + J2.0	4.0 – J3.9

P_{OUT} = 60 W
V_{CE} = 28 V