

NPN SILICON RF POWER TRANSISTOR

DESCRIPTION:

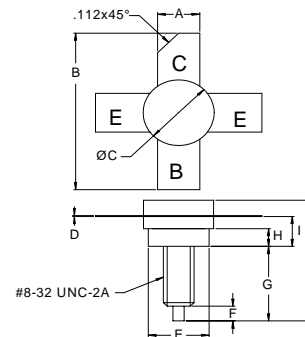
The **ASI VHB50-28S** is an NPN power transistor designed for 25 V Class-C ground station transmitters, it utilizes emitter ballasting and gold metalization to provide optimum VSWR capability.

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

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

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
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** $T_C = 25\text{ }^\circ\text{C}$

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

IMPEDANCE DATA

FREQ	$Z_{IN} (\Omega)$	$Z_{CL} (\Omega)$
150 MHz	$1.0 + j2.0$	$4.0 - j3.9$

 $P_{OUT} = 60\text{ W}$ $V_{CE} = 28\text{ V}$