

# NPN SILICON RF POWER TRANSISTOR

**DESCRIPTION:**

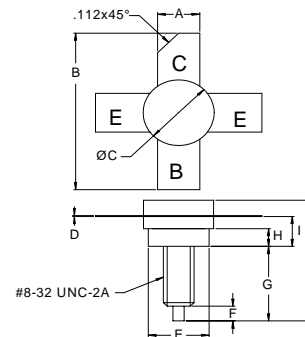
The **ASI VHB50-28S** is an NPN power transistor designed for 25 V Class-C ground station transmitters, it utilizes emitter ballasting and gold metalization to provide optimum VSWR capability.

**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
$\theta_{JC}$	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**  $T_C = 25\text{ °C}$ 

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
$P_G$ $\eta_c$	$V_{CE} = 28\text{ V}$ $P_{IN} = 12\text{ W}$ $P_{OUT} = 50\text{ W}$ $f = 175\text{ MHz}$	6.0	60		<b>dB</b> <b>%</b>

**IMPEDANCE DATA**

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

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