

# NPN SILICON RF POWER TRANSISTOR

**DESCRIPTION:**

The **ASI VHB25-12S** is Designed for Class C, 12.5 V High Band Applications up to 175 MHz.

**FEATURES:**

- Common Emitter
- $P_G = 10$  dB at 25 W/175 MHz
- **Omnigold™** Metalization System

**MAXIMUM RATINGS**

$I_C$	4.0 A
$V_{CBO}$	36 V
$V_{CEO}$	18 V
$V_{EBO}$	4.0 V
$P_{DISS}$	65 W @ $T_C = 25$ °C
$T_J$	-65 °C to +200 °C
$T_{STG}$	-65 °C to +150 °C
$\theta_{JC}$	3.5 °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: ASI10715**

**CHARACTERISTICS**  $T_C = 25$  °C

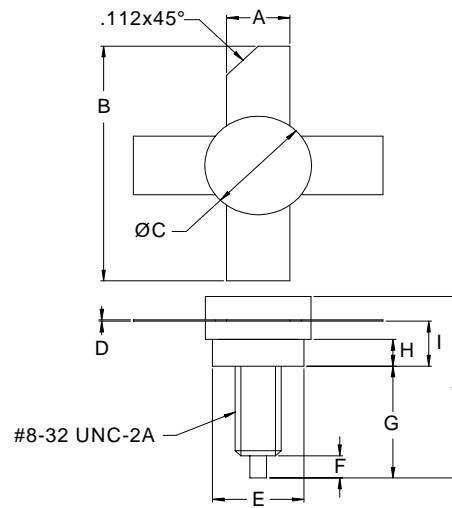
SYMBOL	TEST CONDITIONS	MINIMUM	TYPICAL	MAXIMUM	UNITS
$BV_{CEO}$	$I_C = 50$ mA	18			V
$BV_{CES}$	$I_C = 15$ mA	36			V
$BV_{EBO}$	$I_E = 5.0$ mA	4.0			V
$I_{CBO}$	$V_{CB} = 28$ V			5.0	mA
$h_{FE}$	$V_{CE} = 5.0$ V $I_C = 250$ mA	20		---	---
$C_{OB}$	$V_{CB} = 12.5$ V $f = 1.0$ MHz			110	pF
$P_G$ $\eta_c$	$V_{CE} = 12.5$ V $P_{OUT} = 25$ W $f = 175$ MHz	10	60		dB %

## IMPEDANCE DATA

$P_{OUT} = 25\text{ W}$

$V_{CE} = 12.5\text{ V}$

FREQ	$Z_{IN} (\Omega)$	$Z_{CL} (\Omega)$
135 MHz	$0.9 - j0.5$	$2.2 + j0.8$
150 MHz	$0.9 + j0.3$	$2.1 + j0.9$
175 MHz	$1.0 + j0.4$	$1.8 + j1.1$



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