

# NPN SILICON RF POWER TRANSISTOR

**DESCRIPTION:**

The **ASI VHB40-12S** is Designed for Class C, 12.5 V High Band Applications up to 175 MHz.

**FEATURES:**

- Common Emitter
- $P_G = 8.5$  dB at 40 W/175 MHz
- **Omnigold™** Metalization System

**MAXIMUM RATINGS**

$I_C$	5.0 A
$V_{CBO}$	36 V
$V_{CEO}$	18 V
$V_{EBO}$	4.0 V
$P_{DISS}$	70 W @ $T_C = 25$ °C
$T_J$	-65 °C to +200 °C
$T_{STG}$	-65 °C to +150 °C
$\theta_{JC}$	2.9 °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: ASI10717**

**CHARACTERISTICS**  $T_C = 25$  °C

SYMBOL	TEST CONDITIONS	MINIMUM	TYPICAL	MAXIMUM	UNITS
$BV_{CBO}$	$I_C = 50$ mA	36			V
$BV_{CES}$	$I_C = 50$ mA	36			V
$BV_{CEO}$	$I_C = 50$ mA	18			
$BV_{EBO}$	$I_E = 10$ mA	4.0			V
$I_{CES}$	$V_{CE} = 28$ V			5.0	mA
$h_{FE}$	$V_{CE} = 5.0$ V $I_C = 5.0$ A	20		200	---
$C_{ob}$	$V_{CB} = 12.5$ V $f = 1.0$ MHz			135	pF
$G_P$ $\eta_c$	$V_{CC} = 12.5$ V $P_{OUT} = 40$ W $f = 175$ MHz	8.5	60		dB %