

# NPN SILICON RF POWER TRANSISTOR

**DESCRIPTION:**

The ASI VHB40-12S is Designed for

**FEATURES:**

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- **Omnigold™** Metalization System

**MAXIMUM RATINGS**

<b>I<sub>C</sub></b>	5.0 A
<b>V<sub>CB0</sub></b>	36 V
<b>V<sub>CEO</sub></b>	18 V
<b>V<sub>EBO</sub></b>	4.0 V
<b>P<sub>DISS</sub></b>	70 W @ T <sub>C</sub> = 25 °C
<b>T<sub>J</sub></b>	-65 °C to +200 °C
<b>T<sub>STG</sub></b>	-65 °C to +150 °C
<b>θ<sub>JC</sub></b>	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<sub>C</sub> = 25 °C

SYMBOL	TEST CONDITIONS	MINIMUM	TYPICAL	MAXIMUM	UNITS
<b>BV<sub>CB0</sub></b>	I <sub>C</sub> = 50 mA	36			<b>V</b>
<b>BV<sub>CES</sub></b>	I <sub>C</sub> = 50 mA	36			<b>V</b>
<b>BV<sub>CEO</sub></b>	I <sub>C</sub> = 50 mA	18			
<b>BV<sub>EBO</sub></b>	I <sub>E</sub> = 10 mA	4.0			<b>V</b>
<b>I<sub>CES</sub></b>	V <sub>CE</sub> = 28 V			5.0	<b>mA</b>
<b>h<sub>FE</sub></b>	V <sub>CE</sub> = 5.0 V      I <sub>C</sub> = 5.0 A	20		200	<b>---</b>
<b>C<sub>ob</sub></b>	V <sub>CB</sub> = 12.5 V      f = 1.0 MHz			135	<b>pF</b>
<b>G<sub>P</sub></b> <b>η<sub>C</sub></b>	V <sub>CC</sub> = 12.5 V      P <sub>OUT</sub> = 40 W      f = 175 MHz	8.5	60		<b>dB</b> <b>%</b>