

NPN SILICON RF POWER TRANSISTOR

DESCRIPTION:

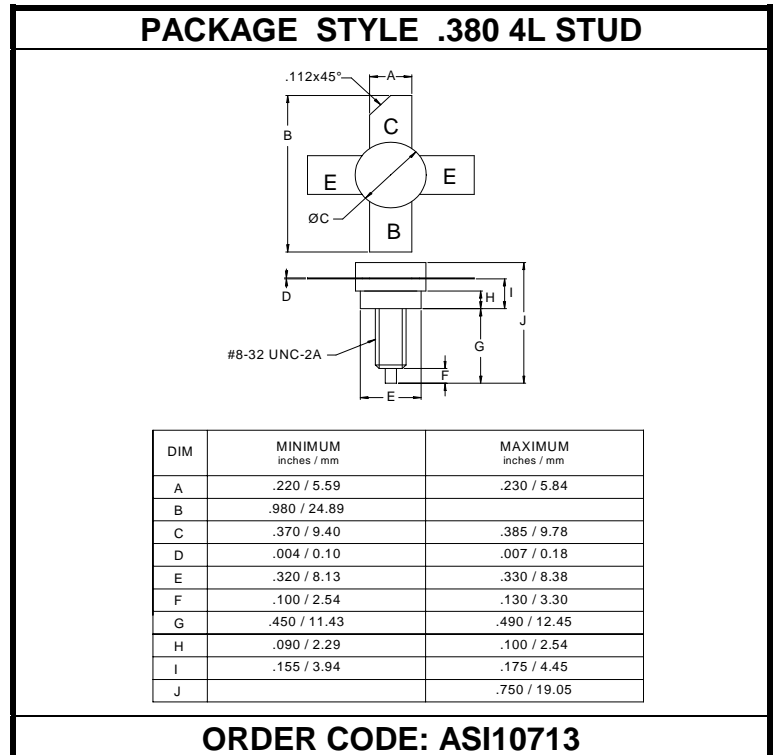
The **ASI VHB10-12S** is Designed for 12.5 V, High Band Application.

FEATURES:

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

MAXIMUM RATINGS

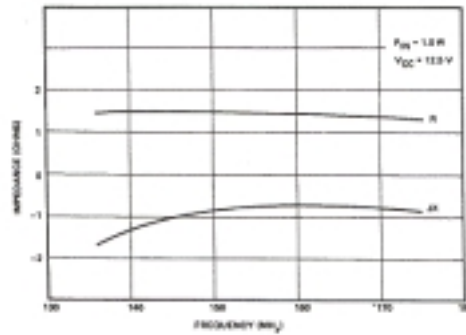
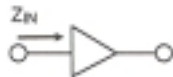
I_C	2.0 A
V_{CBO}	36 V
V_{CEO}	18 V
V_{CES}	36 V
V_{EBO}	4.0 V
P_{DISS}	20 W @ $T_C = 25$ °C
T_J	-65 °C to +200 °C
T_{STG}	-65 °C to +150 °C
θ_{JC}	8.8 °C/W


CHARACTERISTICS $T_C = 25$ °C

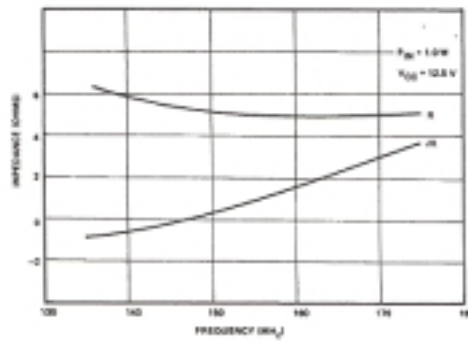
SYMBOL	TEST CONDITIONS	MINIMUM	TYPICAL	MAXIMUM	UNITS
BV_{CEO}	$I_C = 15$ mA	18			V
BV_{CES}	$I_C = 50$ mA	36			V
BV_{EBO}	$I_E = 2.5$ mA	4.0			V
I_{CBO}	$V_{CB} = 15$ V			1.0	mA
h_{FE}	$V_{CE} = 5.0$ V $I_C = 250$ mA	5.0		200	---
C_{OB}	$V_{CB} = 12.5$ V $f = 1.0$ MHz			45	pF
P_G η_c	$V_{CE} = 12.5$ V $P_{OUT} = 10$ W $f = 175$ MHz	10	60		dB %

IMPEDANCE DATA

TYPICAL INPUT IMPEDANCE

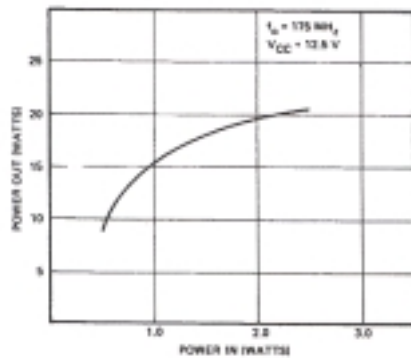


TYPICAL COLLECTOR LOAD IMPEDANCE



TYPICAL PERFORMANCE

POWER OUTPUT vs POWER INPUT



POWER OUTPUT vs FREQUENCY

