

NPN SILICON RF POWER TRANSISTOR

DESCRIPTION:

The **ASI VHB1-12T** is Designed for Class C, 12.5 V High Band Applications up to 175 MHz.

FEATURES:

- Class C Operation
- $P_G = 10$ dB at 1.0 W/175 MHz
- **Omnigold™** Metalization System

MAXIMUM RATINGS

I_C	400 mA (MAX)
V_{CB0}	40 V
V_{CEO}	20 V
V_{CER}	40 V
V_{EBO}	2.0 V
P_{DISS}	3.5 W @ $T_C = 25$ °C
T_J	-65 °C to +200 °C
T_{STG}	-65 °C to +200 °C
θ_{JC}	20 °C/W

PACKAGE STYLE TO-39

DIM	MINIMUM inches / mm	MAXIMUM inches / mm
A	.200 / 5.080	
B	.029 / 0.740	.045 / 1.140
C	.028 / 0.720	.034 / 0.860
D	.335 / 8.510	.370 / 9.370
E	.305 / 7.750	.335 / 8.500
F	.240 / 6.100	.260 / 6.600
G	.500 / 12.700	
H	.016 / 0.407	.020 / 0.508

ORDER CODE: ASI10711

CHARACTERISTICS $T_C = 25$ °C

SYMBOL	TEST CONDITIONS	MINIMUM	TYPICAL	MAXIMUM	UNITS
BV_{CEO}	$I_C = 5.0$ mA	20			V
BV_{CER}	$I_C = 5.0$ mA $R_{BE} = 10$ Ω	40			V
BV_{EBO}	$I_E = 100$ μA	2.0			V
I_{CEO}	$V_{CE} = 12$ V			0.2	mA
h_{FE}	$V_{CE} = 5.0$ V $I_C = 100$ mA	10		200	---
$V_{CE(SAT)}$	$I_C = 100$ mA $I_B = 20$ mA			0.5	Vdc
C_{OB}	$V_{CB} = 12.5$ V $f = 1.0$ MHz			4.0	pF
P_G η_C	$V_{CE} = 12.5$ V $P_{OUT} = 1.0$ W $f = 175$ MHz	10	60		dB %