3.3 V, 2.5 GHz Wi-Fi Linear Power Amplifier

Alpha

AP157-317

Features

- IEEE 802.11b
- 1800–2500 MHz Operation
- 18 dB Small Signal Gain
- 27 dBm $P_{1\ dB}$ @ 2.4 GHz
- Uses Single DC Bias Supply
- Low Cost Plastic Package
- Availiable on Tape & Reel

Description

The ENP2B-317 is a linear, medium power amplifier designed for low voltage operation. The device is manufactured on our advanced InGap HBT transistor process. It is designed for use as the power amplifier in WLAN and other 2.5 GHz spread spectrum transmitters. The amplifier is packaged in a 16 pin 4 x 4 mm micro lead package.

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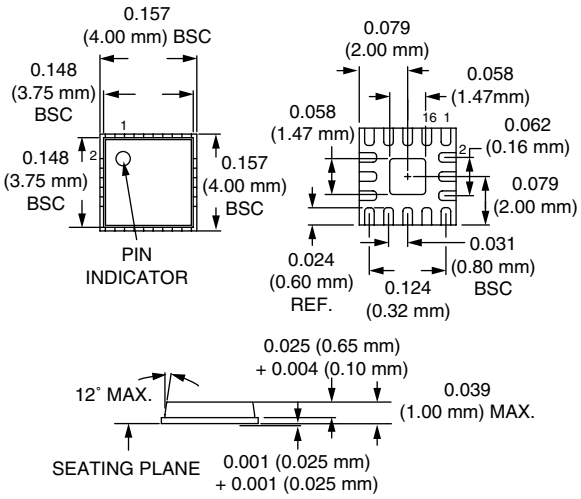


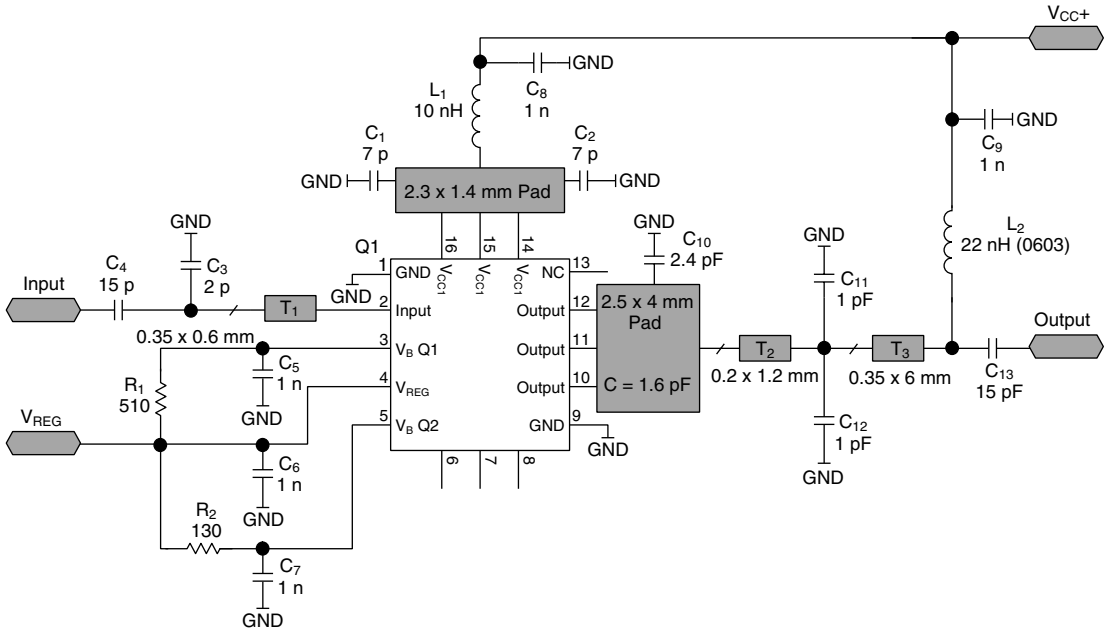
Absolute Maximum Ratings

Characteristic	Value
RF Input Power	15 dBm
Supply Current	600 mA
Supply Voltage	6 V
Operating Temperature	-40°C to +85°C
Storage Temperature	-65°C to +125°C

Electrical Specifications at 25°C

Parameter	Condition	Symbol	Min.	Typ.	Max.	Unit
Frequency Range	I_C = 350	MHz	1800		2500	dB
Small Signal Gain	I_C = 350	Ga		18		dB
Max Saturated Output Power			29	31		dBm
Max. Linear Output Power	802.11 Modulation 11 Mbits Meeting 802.11b Spectral Mask			26		dBm
Output Power at 1 dB Compression	F = 2.4 GHz	$P_{1\ dB}$	26	27		dBm
Input and Output VSWR	F = 1800–2500 MHz	VSWR		1.8		
Input Impedance				50		Ω
Operating Voltage	Amplifier DC Voltage	V_D	3	3.3	4.5	V
Reverse Isolation		Isol.		30		dB
Current Consumption	P_{Out} @ Max. Out P_{Out} @ 27 dBm Quiescent			500 350 125		mA mA mA

Suggested Circuit



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