

Features: (typical values)

- Output Power – 1.0 W. @ 1dB. compression,
- IP3 – 45 dBm.
- IP2 – 70 dBm.
- Unconditional Stability
- No external components required

**1.5 - 32.0 MHz
18.0 dB Push-Pull Amplifier**



Maximum Ratings

Storage temperature -55°C to +125°C
 DC Operating Voltage +17.0 volts
 RF Input Voltage +15dBm. Max.
 Operating Base Temp -40 to +90°C

Specifications @ Tcase = 25°C, Vcc = 15V, 50 ohm systems unless otherwise noted.

Parameter	Typical Conditions	Min Value	Max Value	Units
Frequency Range		1.5	32	MHz.
Power Gain	18	17		dB.
Gain Flatness (peak to peak)	0.5		1.0	dB.
Input VSWR	1.3		1.5:1	-
Output VSWR	1.3		1.5:1	-
Noise Figure	3.5		4	dB.
Power Output- 1dB Compression	30	28		dBm.
Third Order Intercept (IP3) @ 15 dBm per tone	45	41		dBm.
Second Order Intercept (IP2) @ 15 dBm per tone	70	57		dBm.
Supply Current @ 15 Volts	210		240	mA.

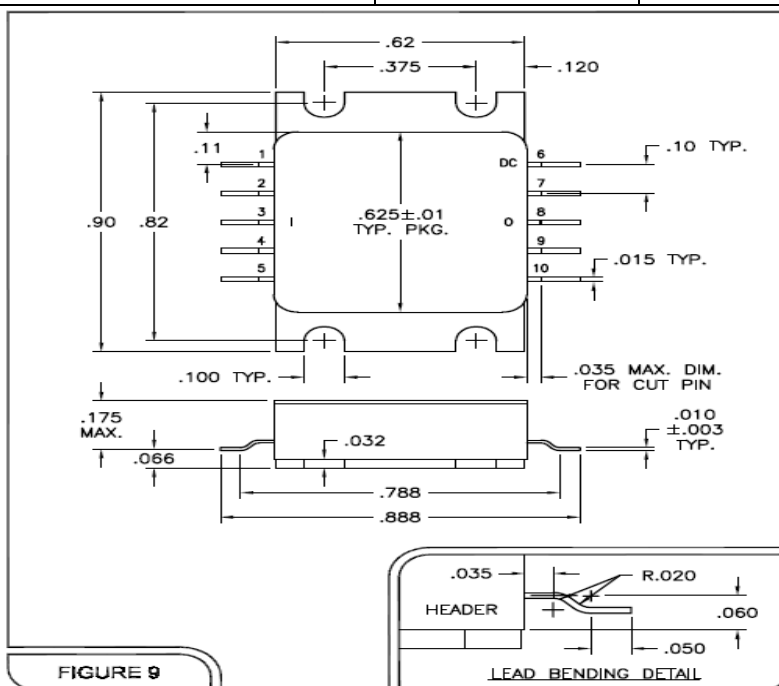
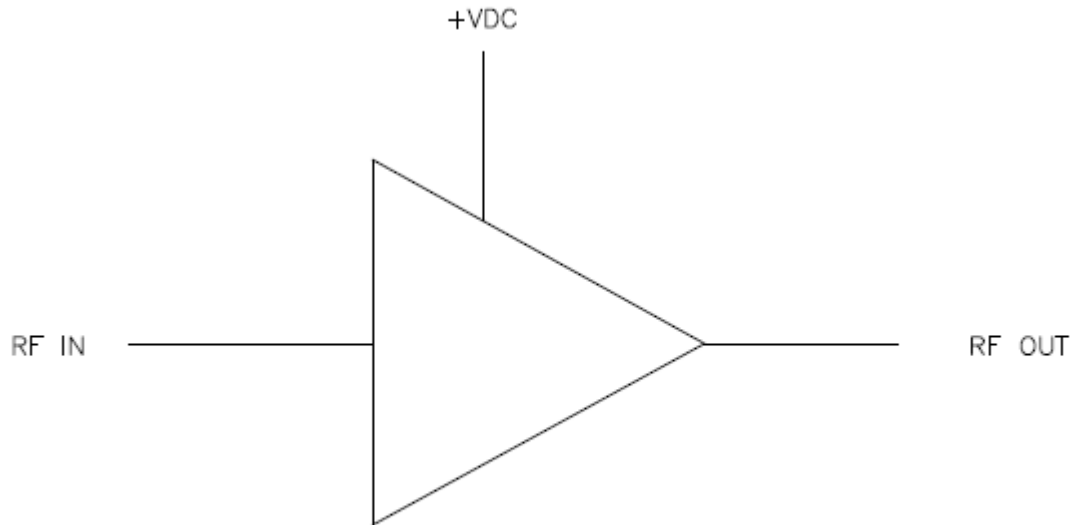


FIGURE 9

FINAL ELECTRICAL TEST REQUIREMENTS

TEST Vdc +15V	LIMITS Tc = 0° C / 25° C / 50° C	ACTUAL DATA
Gain 1.5 to 32.0 MHz	17.0 dB min	19.4
Gain Flatness 1.5 to 32.0 MHz	1.0 dB PP max	0.1
Gain Variation Over Temp. 1.5 to 32.0 MHz	1.0 dB PP max	0.5
DC Current at +15 Vdc	240 mA max	193
Input VSWR 1.5 to 32.0 MHz	1.5 : 1 max	1.2
Output VSWR 1.5 to 32.0 MHz	1.5 : 1 max	1.2
Noise Figure 1.5 to 32.0 MHz	4.0 dB max	3.8
P 1.0 dB Compression 1.5 & 32.0 MHz	28 dBm min	28.2
IP3 with Pout = +15.0 dBm each tone 1) F1/F2=2.5/3.5 MHz Fc= 1.5 & 4.5 MHz 2) F1/F2=30/31 MHz Fc= 29 & 32 MHz	41.0 dBm min	43.0
IP2 with Pout = +15.0 dBm each tone 1) F1-F2= 32 -30.5 Fc= 1.5 MHz 2) F1+F2= 30.5 + 1.5 Fc= 32 MHz	57.0 dBm min	68.0
Stability Test : For all frequencies Where $ S_{21} > 0\text{dB}$	0 dB max	<0

FUNCTIONAL BLOCK DIAGRAM



NO EXTERNAL COMPONENT REQUIRED