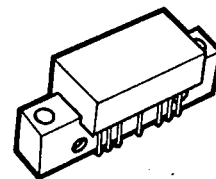


VHF-UHF Linear Amplifier

- **Wide Bandwidth:**
10MHz-1000MHz
- **17dB Gain**
- **Wide Dynamic Range:**
7.5dB Noise Figure
- **40 dBm Third Order Intercept**
- **Low Second Order Distortion: Push Pull Circuitry**
- **Optimized for 15V Power Supply**
- **400mW Output Power**



CA

Electrical Characteristics for 50Ω Systems (TCASE = 25°C and 15V Supply)

Symbol	Characteristics	Test Conditions	Min.	Typ.	Max.	Units
P _G	Power Gain	f = 100MHz	16	17	18	dB
F _R	Frequency Response	10-1000MHz		±0.5	±1	dB
P _O	Power Output, 1dB Compression	f = 500MHz	300	400		mW
I _{TO}	Third Order Intercept see Figure 1	10-1000MHz	+38	+40		dBm
d _{SO}	Second Harmonic Suppression	P _O = 100mW f _{2h} = 1000MHz	-40	-50		dB
NF	Noise Figure	f = 500MHz f = 1000MHz		6.5 7.5	8 9	dB
VSWR	Input/Output (50Ω)	40-860MHz 10-1000MHz			2:1 2.5:1	N/A
I _{CC}	Supply Current	+15V	360	380	400	mA
PEP	Peak Envelope Power – For 2 Tone Distortion Test, see Fig. 1	f = 500MHz		+25		dBm
IMD	Intermodulation Distortion TV Test (-8 -17 -10) See Fig. 2	f = 860MHz P _{SYN} = 200mW		-60		dB

Absolute Maximum Ratings

Supply Voltage (V _{CC})	RF Power Input (T _{OP1})	Storage Temperature (T _{STG})	Case Operating Temp.
+18 Volts	+14dBm	-55°C to +125°C	-40°C to +100°C

Package Outline

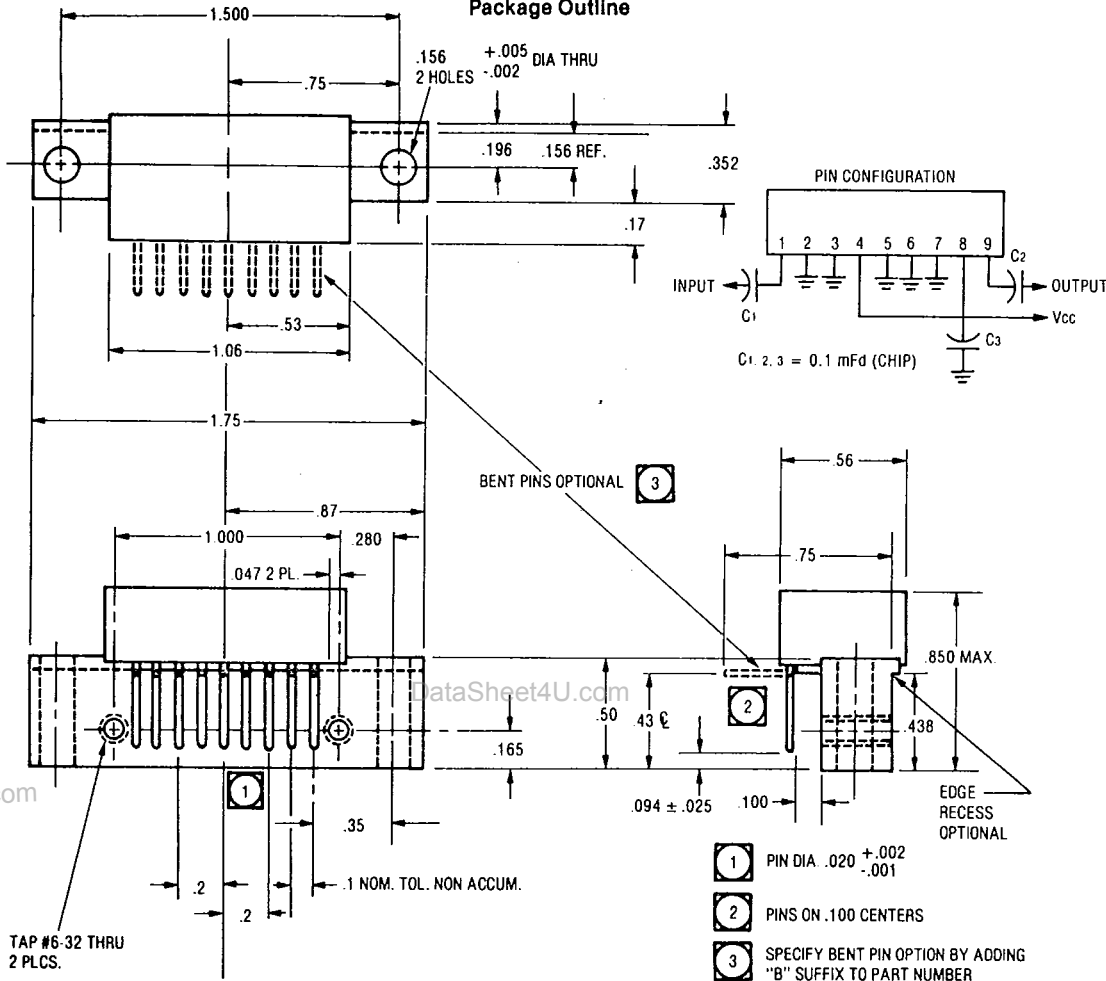
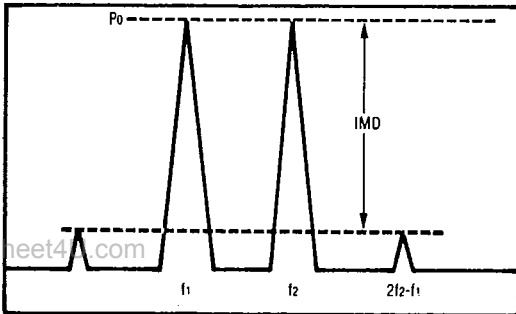


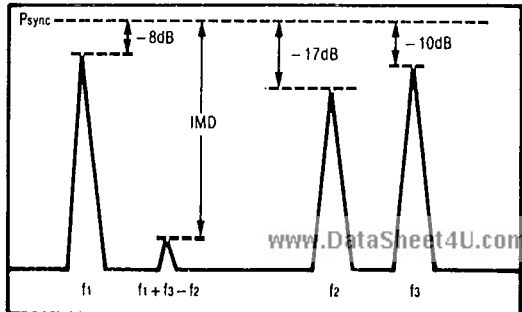
Figure 1: 2 Tone Intermodulation Test



$$I_{T0} = P_0 + \frac{IMD}{2} \text{ @ } IMD > 60\text{dB}$$

$$PEP = 4X P_0 \text{ @ } IMD = -32\text{dB}$$

Figure 2: 3 Tone TV Intermodulation Test



f_1 : video
 f_2 : sideband
 f_3 : sound