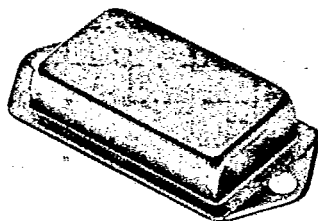


AHD-560



1 to 250 MHz 4 PIN DIP Cascadable Amplifier

- High Intercept: 31.0dBm
- Gain: 23.0dB Typical
- Power Out: 21.0dBm Typical

Electrical Specifications

Measured in a 50-ohm system at +15 Vdc nominal

Characteristic	Typical 25°C	Guaranteed 0°C to +50°C	Specifications -54°C to +85°C
Frequency (MHz Min.)	1-250	1-250	1-250
Small Signal Gain (dB Min.)	+23.0	+22.0	+21.0
Gain Flatness (dB Max.)	±0.5	±1.0	±1.0
Noise Figure (dB Max.)	+6.0	+6.5	+7.0
Power Output @ 1 dB Compression (dBm Min.)	+20.6	+20.0	+20.0
Two Tone 3rd Order Intercept Point (dBm Min.)	+31.0	+29.0	+29.0
Two Tone 2nd Order Intercept Point (dBm Min.)	+43.0	+42.0	+40.0
One Tone 2nd Harmonic Intercept Point (dBm Min.)	+47.0	+45.0	+43.0
Input/Output VSWR (Max.)	<1.5:1	2.0:1	2.0:1
DC Current at 15 V (mA Max.)	+100.0	+105.0	+110.0

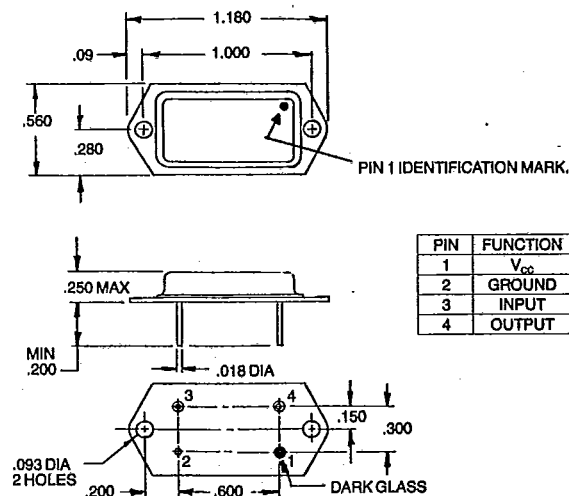
Maximum Ratings

Ambient Operating Temperature	-54°C to +85°C
Storage Temperature ...	-62°C to +125°C
Maximum Case Temperature	+95°C
Maximum DC Voltage	+18.0V
Maximum Continuous RF Input Power	+15.0dBm
Maximum Short Term RF Input Power	+50.0 mW (1 minute Max.)
Maximum Peak Power	+0.5W (3μseconds Max.)
"X" Series Burn-In Temperature	+85°C
Weight	+6.0 grams Max.

Outline Drawings

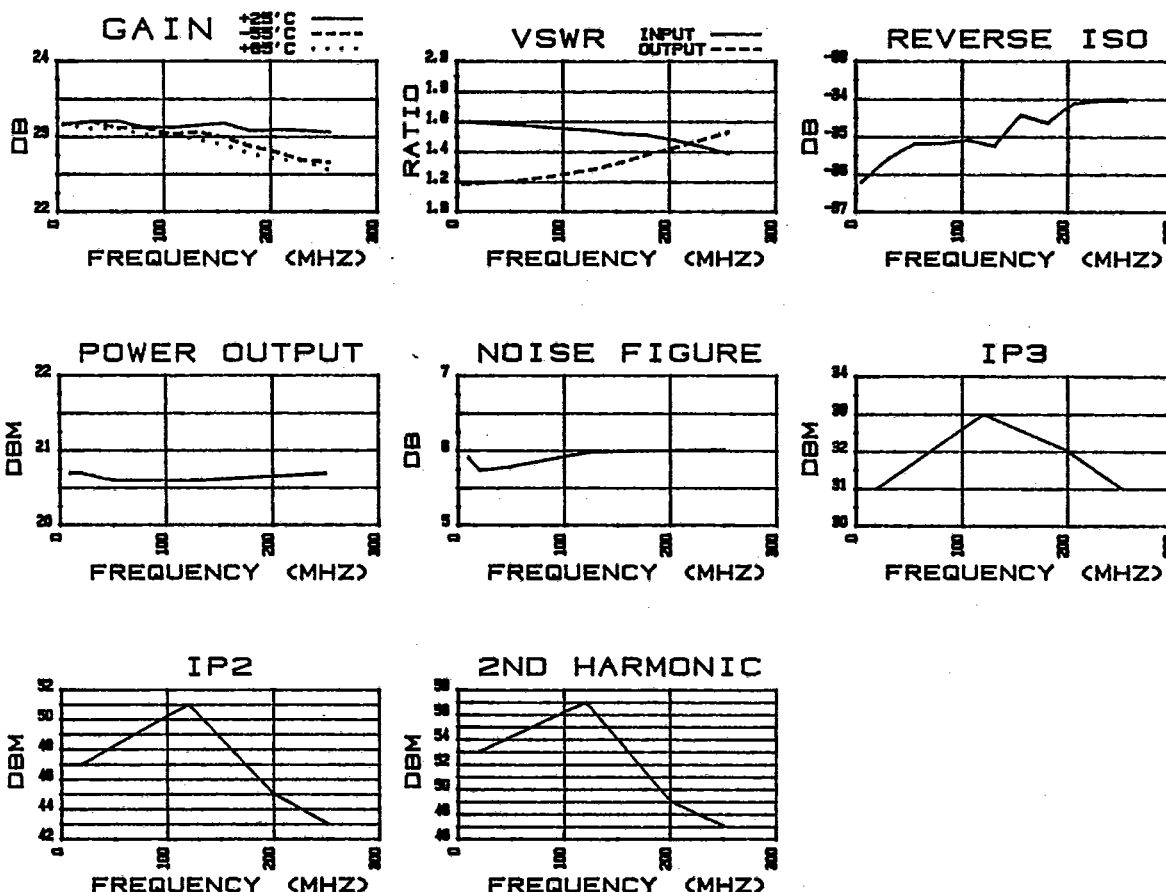
(For additional package configurations, see Section 9)

4 PIN DIP



AHD-560

Typical Performance



AHD-560 101.0 mA @ 15.0Vdc Linear S-Parameters

FREQUENCY MHz	RETURN LOSS INPUT (S11)		TRANS. GAIN FORWARD (S21)		TRANS. GAIN REVERSE (S12)		RETURN LOSS OUTPUT (S22)	
	dB	ANG	dB	ANG	dB	ANG	dB	ANG
5.000	-12.8	-175.8	23.16	7.3	-36.20	0.8	-21.4	20.4
30.000	-12.9	176.9	23.20	-14.8	-35.57	-9.5	-20.9	-13.2
55.000	-13.0	174.1	23.21	-29.2	-35.16	-6.4	-20.4	-32.3
80.000	-13.2	171.3	23.11	-42.8	-35.17	-4.3	-19.7	-46.5
105.000	-13.4	168.1	23.12	-56.2	-35.07	-8.7	-18.8	-59.6
130.000	-13.5	165.4	23.15	-66.5	-35.24	-6.8	-18.0	-68.3
155.000	-13.8	162.5	23.18	-80.0	-34.41	-12.3	-16.9	-77.6
180.000	-13.9	159.8	23.07	-97.0	-34.63	-10.3	-15.8	-90.6
205.000	-14.3	157.5	23.09	-110.7	-34.10	-10.8	-15.0	-99.2
230.000	-15.0	156.3	23.08	-124.5	-34.01	-12.5	-14.2	-107.0
255.000	-15.8	155.8	23.05	-138.2	-34.02	-12.8	-13.5	-114.3

Deviation from Linear Phase, Gain, Group Delay, and VSWR

FREQUENCY (MHz)	VSWR INPUT	DEV. LIN. 0 (DEG.)	GAIN DEV. (dB)	GROUP DELAY (n-SEC)	VSWR OUTPUT
5.000	1.597	5.609	0.033	0.000	1.186
30.000	1.587	-2.490	0.071	2.459	1.198
55.000	1.577	-2.881	0.078	1.602	1.211
80.000	1.563	-2.395	-0.015	1.505	1.231
105.000	1.548	-1.842	-0.010	1.497	1.259
130.000	1.540	1.919	0.020	1.141	1.289
155.000	1.517	2.406	0.049	1.505	1.332
180.000	1.508	-0.548	-0.056	1.887	1.388
205.000	1.475	-0.232	-0.036	1.524	1.430
230.000	1.433	0.075	-0.054	1.525	1.483
255.000	1.387	0.379	-0.080	1.525	1.533