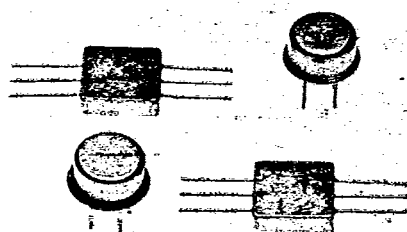


AH-403/463



5 to 400 MHz TO-12 Cascadable Amplifier

- Low Cost
- Small Size
- Output Power: +15.5dBm
- +24.0V Supply

Electrical Specifications

Measured in a 50-ohm system at +24 Vdc nominal

Characteristic	Typical 25°C	Guaranteed 0°C to +50°C	Specifications -54°C to +71°C
Frequency (MHz Min.)*	5-400	5-400	5-400
Small Signal Gain (dB Min.)	+12.0	+11.0	+9.0
Gain Flatness (dB Max.)	±.3	±0.5	±1.0
Noise Figure (dB Max.)	+6.0	+7.0	+9.0
Power Output @ 1 dB Compression (dBm Min.)	+15.5	+14.0	+13.0
Two Tone 3rd Order Intercept Point (dBm Min.)	+28.0	+26.0	+23.0
Two Tone 2nd Order Intercept Point (dBm Min.)	+38.0	+36.0	+33.0
One Tone 2nd Harmonic Intercept Point (dBm Min.)	+44.0	+42.0	+38.0
Input/Output VSWR (Max.)	<1.8:1	2.0:1	2.0:1
DC Current at 24 V (mA Max.)	+57.0	+60.0	+70.0

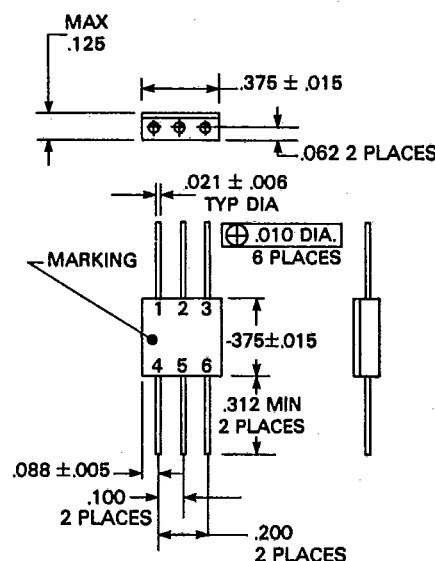
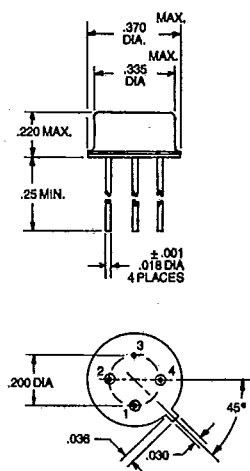
Maximum Ratings

Ambient Operating Temperature	-54°C to +71°C
Storage Temperature ...	-62°C to +125°C
Maximum Case Temperature	+85°C
Maximum DC Voltage	+25.0V
Maximum Continuous RF Input Power	+13.0dBm
Maximum Short Term RF Input Power	+50.0 mW (1 minute Max.)
Maximum Peak Power	+0.5W (3μseconds Max.)
"X" Series Burn-In Temperature	+71°C
Weight	+2.3 grams Max.

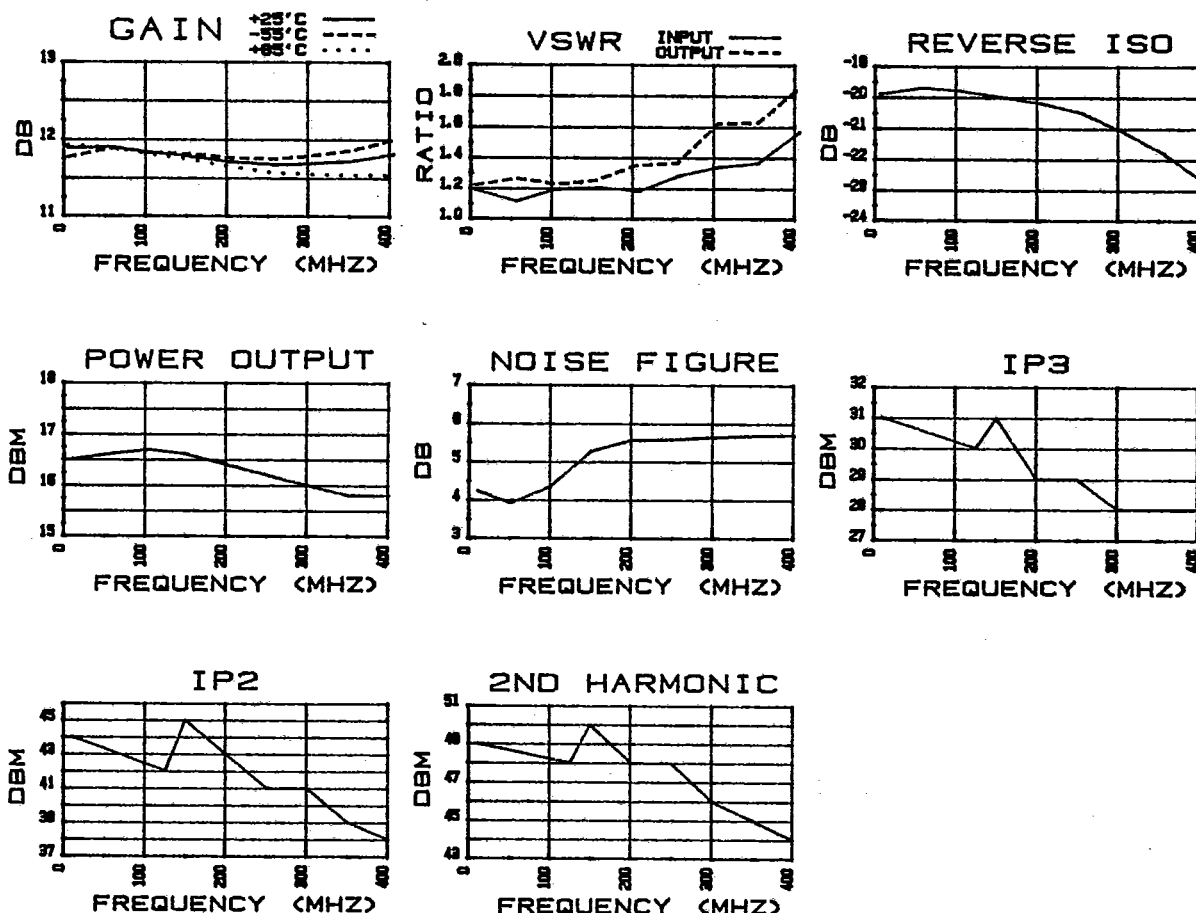
*The AH-463 requires external coupling and bypass capacitors to establish low frequency roll-off

Outline Drawings

(For additional package configurations, see Section 9)



Typical Performance



AH-403 56.8 mA @24.0Vdc 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	-21.3	-159.3	11.89	-176.3	-19.90	5.0	-20.2	-9.0
55.000	-25.3	169.0	11.91	172.8	-19.70	0.8	-18.7	8.0
105.000	-20.9	177.8	11.83	166.0	-19.80	0.5	-20.0	8.5
155.000	-20.5	-164.3	11.78	159.8	-20.00	0.5	-19.0	8.0
205.000	-21.7	-148.0	11.71	152.8	-20.20	-0.2	-16.5	5.0
255.000	-18.1	-141.0	11.67	146.5	-20.50	0.2	-16.2	5.0
305.000	-16.7	-110.3	11.70	140.0	-21.10	0.0	-12.5	-7.5
355.000	-16.1	-113.2	11.73	133.3	-21.80	2.8	-12.4	-2.3
405.000	-13.1	-115.3	11.82	125.8	-22.70	7.5	-10.5	-24.0

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	1.188	2.644	0.108	0.000	1.217
55.000	1.115	-1.426	0.128	0.611	1.263
105.000	1.198	-1.247	0.048	0.375	1.222
155.000	1.208	-0.568	-0.002	0.347	1.253
205.000	1.179	-0.639	-0.072	0.389	1.352
255.000	1.284	0.040	-0.112	0.347	1.367
305.000	1.343	0.469	-0.082	0.361	1.622
355.000	1.372	0.649	-0.052	0.375	1.631
405.000	1.568	0.078	0.038	0.417	1.851