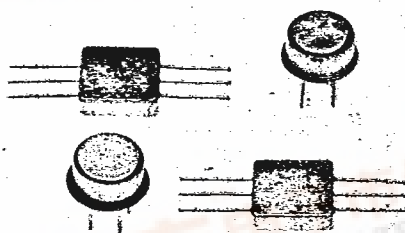


AH-402/462



5 to 400 MHz TO-12 Cascadable Amplifier

- Low Cost
- Small Size
- Medium Gain: 15.0dB

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.)*	5-400	5-400	5-400
Small Signal Gain (dB Min.)	+15.0	+13.0	+12.0
Gain Flatness (dB Max.)	±0.5	±1.0	±1.0
Noise Figure (dB Max.)	+4.5	+5.5	+6.0
Power Output @ 1 dB Compression (dBm Min.)	+9.0	+8.0	+6.0
Two Tone 3rd Order Intercept Point (dBm Min.)	+16.0	+16.0	+14.0
Two Tone 2nd Order Intercept Point (dBm Min.)	+34.0	+28.0	+24.0
One Tone 2nd Harmonic Intercept Point (dBm Min.)	+36.0	+30.0	+27.0
Input/Output VSWR (Max.)	1.8:1	2.0:1	2.0:1
DC Current at 15 V (mA Max.)	+25.0	+28.0	+32.0

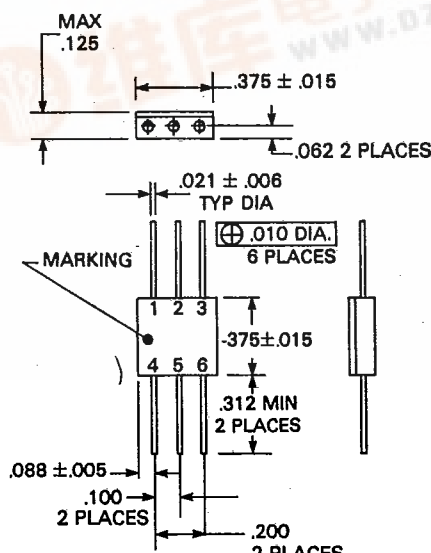
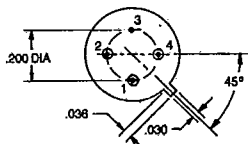
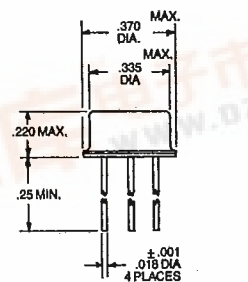
Maximum Ratings

Ambient Operating Temperature	-55°C to +100°C
Storage Temperature ...	-62°C to +125°C
Maximum Case Temperature	+100°C
Maximum DC Voltage	+17.0V
Maximum Continuous RF Input Power	+13.0dBm
Maximum Short Term RF Input Power	+50.0 mW (1 minute Max.)
Maximum Peak Power	+0.5W (1μseconds Max.)
"X" Series Burn-In Temperature	+100°C
Weight	+2.3 grams Max.

*The AH-462 requires external coupling and bypass capacitors to establish low frequency roll-off

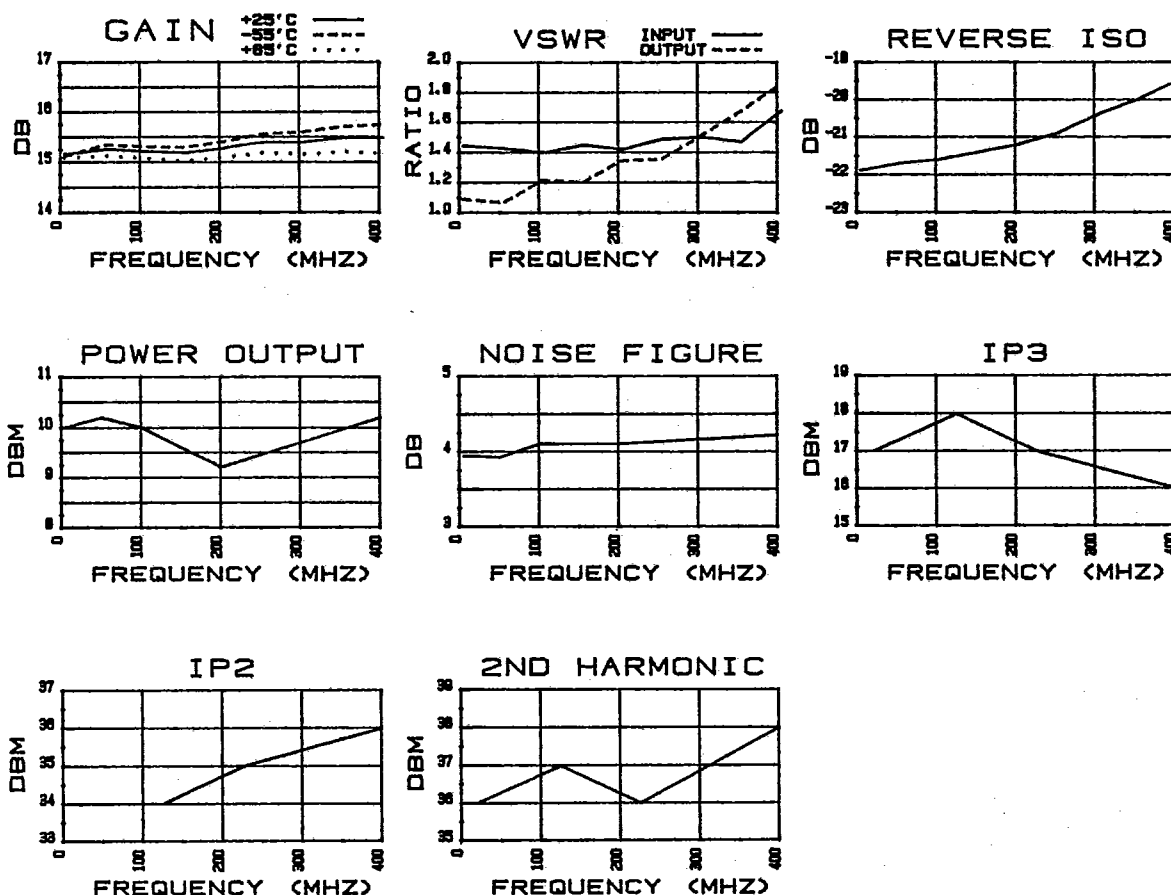
Outline Drawings

(For additional package configurations, see Section 9)



AH-402/462

Typical Performance



AH-402 25.4 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	-14.9	-165.3	15.16	-174.0	-21.90	7.7	-28.0	-34.7
55.000	-15.2	-175.3	15.26	-169.3	-21.70	2.8	-30.5	-61.5
105.000	-15.7	-178.0	15.21	-156.8	-21.60	3.5	-20.4	-85.8
155.000	-14.8	-180.0	15.18	-146.3	-21.40	4.8	-21.0	-107.7
205.000	-15.3	-173.3	15.28	-135.0	-21.20	5.2	-16.7	-123.5
255.000	-14.2	-167.8	15.40	-123.0	-20.90	6.0	-16.5	-139.0
305.000	-14.0	-157.3	15.40	-111.0	-20.40	6.0	-13.9	-155.5
355.000	-14.5	-157.8	15.49	-97.8	-20.00	5.2	-12.0	-169.5
405.000	-12.0	-160.0	15.49	-83.5	-19.50	3.3	-10.5	-170.0

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	1.439	2.439	-0.159	0.000	1.083
55.000	1.421	-1.990	-0.059	0.931	1.062
105.000	1.393	-2.169	-0.109	0.694	1.211
155.000	1.445	-0.349	-0.139	0.583	1.196
205.000	1.415	0.722	-0.039	0.625	1.343
255.000	1.484	1.043	0.081	0.667	1.352
305.000	1.499	1.364	0.081	0.667	1.506
355.000	1.464	0.435	0.171	0.736	1.671
405.000	1.671	-1.494	0.171	0.792	1.851