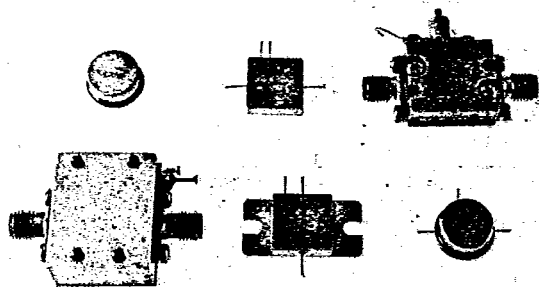


AH-35

T-74-09-01



10 to 2000 MHz TO-8 Cascadable Amplifier

- Medium Noise: +4.2dB
- Medium Output: +9.0dBm
- Various Package Options (see photo)
Surface Mounted (SMT-8), Flatpack with flange (FPF), Connectorized (CAH), Connectorized Flatpack (CFP), Flatpack (FP), and TO-8 (AH)

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.)	10-2000	10-2000	10-2000
Small Signal Gain (dB Min.)	+12.0	+9.0	+8.5
Gain Flatness (dB Max.)	< ±0.5	±0.8	±1.0
Noise Figure (dB Max.)	+4.2	+6.5	+7.0
Power Output @ 1 dB Compression (dBm Min.)	+9.0	+7.0	+6.5
Two Tone 3rd Order Intercept Point (dBm Min.)	+19.0	+17.0	+17.0
Two Tone 2nd Order Intercept Point (dBm Min.)	+30.0	+28.0	+27.0
One Tone 2nd Harmonic Intercept Point (dBm Min.)	+35.0	+34.0	+32.0
Input/Output VSWR (Max.)	<1.7:1	2.0:1	2.0:1
DC Current at 15 V (mA Max.)	+24.0	+27.0	+30.0

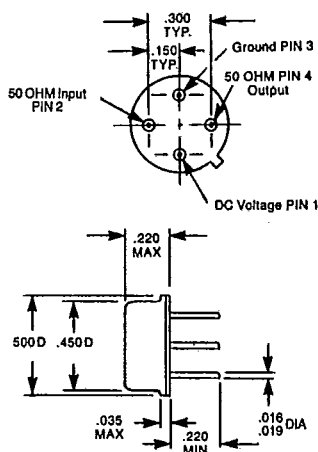
Maximum Ratings

Ambient Operating Temperature	-54°C to +100°C
Storage Temperature ...	-62°C to +125°C
Maximum Case Temperature	+125°C
Maximum DC Voltage	+18.0V
Maximum Continuous RF Input Power	+13.0dBm
Maximum Short Term RF Input Power	+17.0 mW
Maximum Peak Power	+0.5W
"X" Series Burn-In Temperature	+125°C
Weight	+2.5 grams Max.

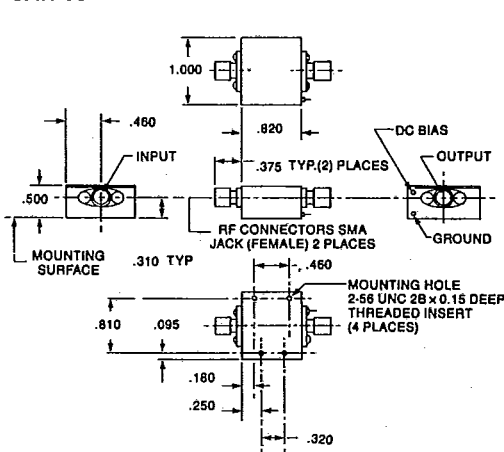
Outline Drawings

(For additional package configurations, see Section 9)

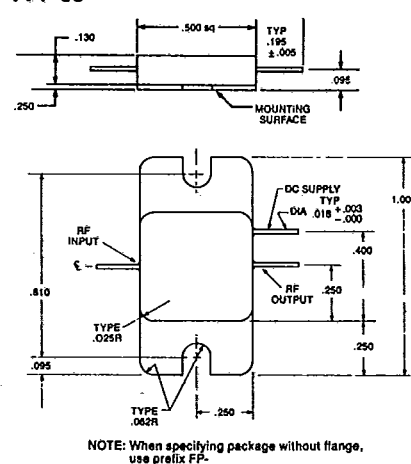
AH-35



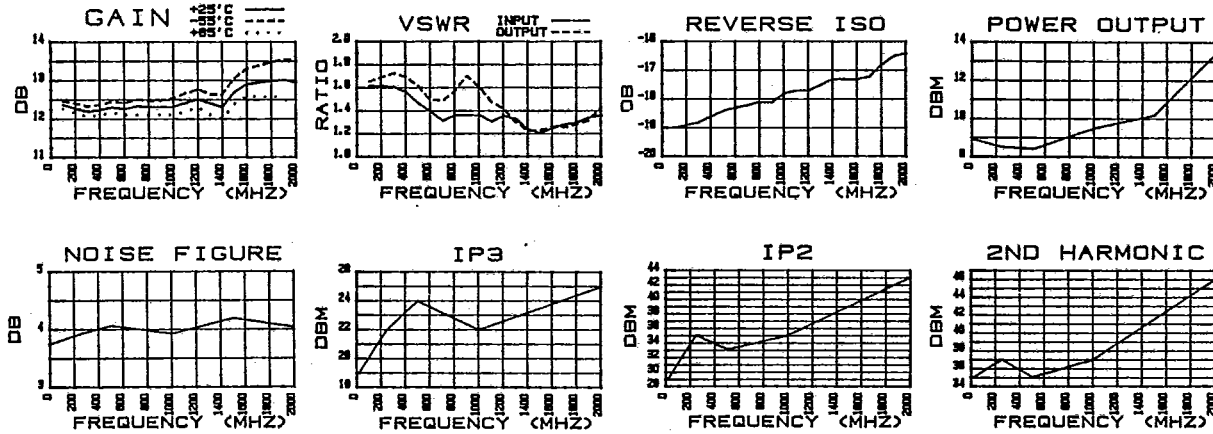
CAH-35



FPF-35



Typical Performance



AH-35 24.4 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
100.000	-12.6	171.5	12.36	170.0	-19.00	-1.3	-12.2	168.3
200.000	-12.6	165.0	12.26	160.5	-18.90	-2.5	-11.8	151.0
300.000	-12.7	159.0	12.18	149.5	-18.80	-6.2	-11.5	134.8
400.000	-13.2	152.3	12.23	138.3	-18.60	-8.7	-11.8	119.5
500.000	-14.5	143.0	12.30	129.5	-18.40	-11.3	-12.6	99.5
600.000	-15.7	138.0	12.25	118.5	-18.30	-14.2	-14.1	80.3
700.000	-17.4	131.0	12.33	107.7	-18.20	-17.5	-14.2	59.8
800.000	-16.3	124.0	12.30	98.3	-18.10	-20.7	-13.1	56.2
900.000	-16.3	114.0	12.30	88.8	-18.10	-23.5	-11.7	44.3
1000.000	-16.3	112.0	12.32	78.8	-17.80	-26.2	-12.7	25.3
1100.000	-17.6	109.5	12.42	68.0	-17.70	-30.8	-14.3	5.2
1200.000	-16.4	105.0	12.51	57.3	-17.70	-36.7	-15.3	-3.7
1300.000	-17.1	87.8	12.40	44.5	-17.50	-40.5	-17.7	-11.0
1400.000	-19.5	93.8	12.30	35.2	-17.30	-46.5	-20.0	-30.5
1500.000	-20.8	121.2	12.70	25.0	-17.30	-50.8	-19.8	-77.8
1600.000	-19.1	130.3	12.90	13.2	-17.30	-54.0	-18.7	-121.8
1700.000	-18.1	116.8	12.95	1.3	-17.20	-58.8	-18.9	-145.0
1800.000	-17.8	99.5	12.99	-12.5	-16.80	-63.8	-18.1	-153.8
1900.000	-16.7	81.8	13.02	-26.2	-16.50	-69.5	-17.2	169.0
2000.000	-16.3	56.5	12.93	-40.0	-16.40	-75.3	-15.1	134.3

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
100.000	1.612	-2.971	-0.138	0.000	1.651
200.000	1.612	-1.661	-0.238	0.264	1.692
300.000	1.603	-1.851	-0.318	0.306	1.725
400.000	1.560	-2.291	-0.268	0.313	1.692
500.000	1.464	-0.231	-0.198	0.243	1.612
600.000	1.393	-0.421	-0.247	0.306	1.491
700.000	1.312	-0.361	-0.167	0.299	1.484
800.000	1.362	0.950	-0.198	0.264	1.568
900.000	1.362	2.260	-0.198	0.264	1.703
1000.000	1.362	3.070	-0.178	0.278	1.603
1100.000	1.304	3.130	-0.078	0.299	1.478
1200.000	1.357	3.190	0.013	0.299	1.415
1300.000	1.325	1.250	-0.098	0.354	1.300
1400.000	1.237	2.811	-0.198	0.257	1.222
1500.000	1.201	3.371	0.203	0.285	1.228
1600.000	1.250	2.431	0.402	0.326	1.263
1700.000	1.284	1.241	0.452	0.333	1.256
1800.000	1.296	-1.699	0.493	0.382	1.284
1900.000	1.343	-4.639	0.523	0.382	1.320
2000.000	1.362	-7.579	0.433	0.382	1.427