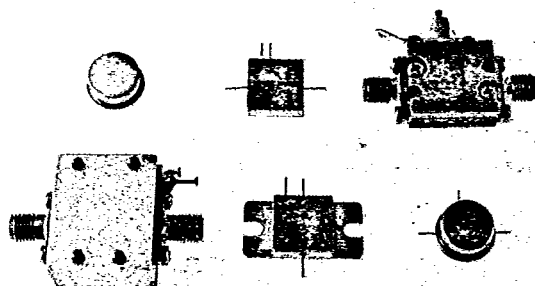


AH-25

T-74-09-01



5 to 1500 MHz TO-8 Cascadable Amplifier

- Medium Output: +9.0dBm
- Wide Bandwidth: 5-1500 MHz
- Various Package Options (see photo)
Surface Mounted (SMTO-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.)	5-1500	5-1500	5-1500
Small Signal Gain (dB Min.)	+12.5	+11.5	+10.5
Gain Flatness (dB Max.)	< ±0.3	±0.6	±1.0
Noise Figure (dB Max.)	+4.0	+7.5	+8.0
Power Output @ 1 dB Compression (dBm Min.)	+9.0	+7.0	+6.5
Two Tone 3rd Order Intercept Point (dBm Min.)	+23.0	+21.0	+17.0
Two Tone 2nd Order Intercept Point (dBm Min.)	+30.0	+29.0	+27.0
One Tone 2nd Harmonic Intercept Point (dBm Min.)	+35.0	+34.0	+32.0
Input/Output VSWR (Max.)	<1.9:1	2.0:1	2.0:1
DC Current at 15 V (mA Max.)	+24.0	+27.0	+29.0

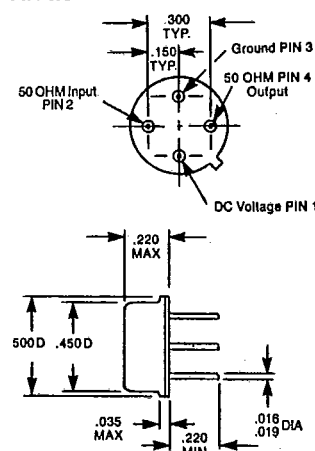
Maximum Ratings

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	+17.0dBm (1 minute Max.)
Maximum Peak Power	+0.5W (3μseconds Max.)
"X" Series Burn-In Temperature	+125°C
Weight	+2.5 grams Max.

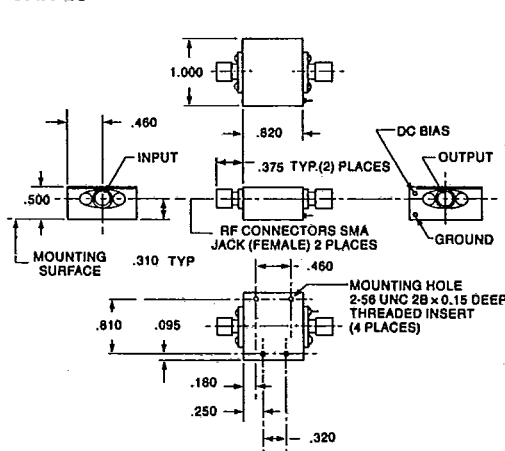
Outline Drawings

(For additional package configurations, see Section 9)

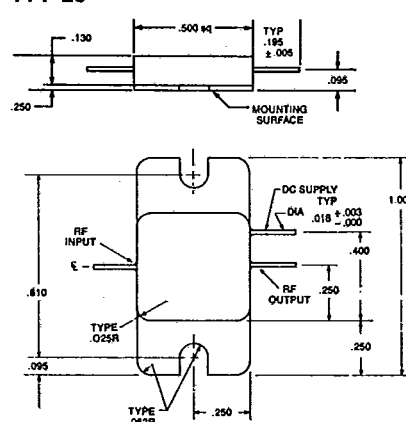
AH-25



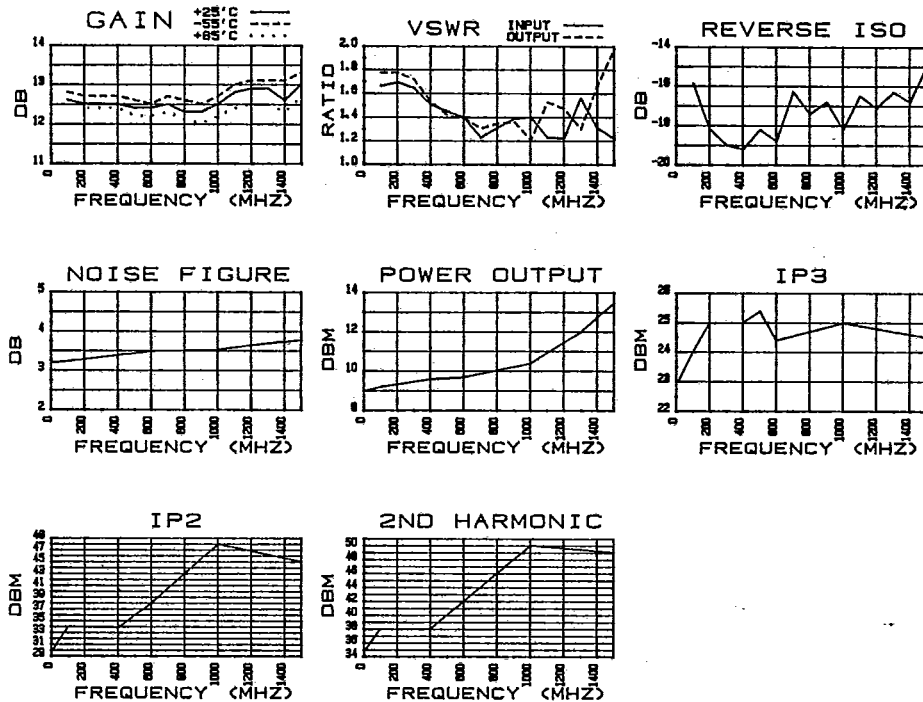
CAH-25



FPF-25



Typical Performance



AH-25 23.8 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	-12.1	148.0	12.60	175.5	-15.90	7.7	-11.1	150.0
200.000	-11.8	70.7	12.50	159.8	-18.20	-6.5	-11.1	-141.8
300.000	-12.3	-17.0	12.50	146.2	-19.00	-2.5	-11.6	-44.5
400.000	-13.9	-106.3	12.50	132.2	-19.20	-9.7	-13.6	-132.5
500.000	-14.8	169.8	12.40	118.5	-18.20	-11.5	-15.3	117.0
600.000	-15.6	104.3	12.40	103.3	-18.80	-19.0	-15.8	-2.0
700.000	-19.9	167.5	12.50	92.3	-16.30	-10.7	-17.6	-62.7
800.000	-17.4	-63.0	12.30	76.5	-17.40	-33.0	-16.6	143.8
900.000	-15.8	-157.3	12.30	63.0	-16.80	-25.3	-16.3	68.3
1000.000	-15.5	142.0	12.50	49.3	-18.20	-35.8	-20.7	-57.8
1100.000	-19.9	57.3	12.80	33.8	-16.50	-36.0	-13.6	167.8
1200.000	-20.2	-66.8	12.90	18.7	-17.10	-45.3	-14.4	98.3
1300.000	-17.2	-6.2	12.90	3.3	-16.30	-38.5	-17.7	-41.0
1400.000	-13.2	73.3	12.60	-14.0	-16.80	-60.3	-12.0	-143.0
1500.000	-20.2	36.2	13.00	-29.7	-15.00	-2.8	-9.7	103.8

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	1.661	-0.727	0.020	0.000	1.772
200.000	1.692	-2.049	-0.080	0.438	1.772
300.000	1.641	-1.122	-0.080	0.375	1.714
400.000	1.506	-0.694	-0.080	0.389	1.528
500.000	1.445	-0.016	-0.180	0.382	1.415
600.000	1.398	-0.839	-0.180	0.424	1.387
700.000	1.225	2.589	-0.080	0.306	1.304
800.000	1.312	1.267	-0.280	0.438	1.347
900.000	1.387	2.194	-0.280	0.375	1.362
1000.000	1.404	2.872	-0.080	0.382	1.203
1100.000	1.225	1.800	0.220	0.431	1.528
1200.000	1.217	1.227	0.320	0.417	1.471
1300.000	1.560	0.155	0.320	0.431	1.300
1400.000	1.308	-2.667	0.020	0.479	1.671
1500.000	1.217	-3.990	0.420	0.438	1.973