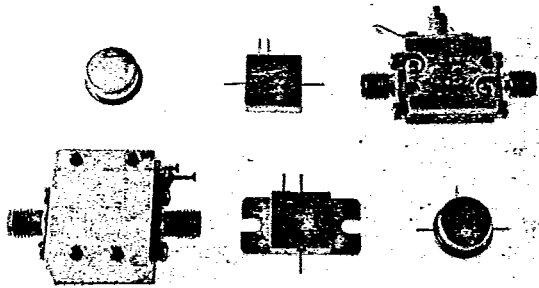


AH-55

T-74-09-01



10 to 500 MHz TO-8 Cascadable Amplifier

- Medium Output: +9.5dBm
- Third Order: +24.0dBm
- 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

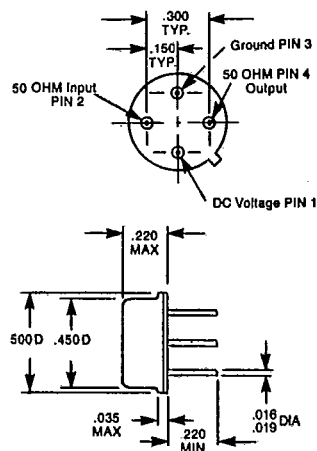
Measured in a 50-ohm system at +15 Vdc nominal

Characteristic	Typical	Guaranteed	Specifications	Maximum Ratings
	25°C	0°C to +50°C	-54°C to +85°C	
Frequency (MHz Min.)	10-500	10-500	10-500	Ambient Operating Temperature -54°C to +100°C
Small Signal Gain (dB Min.)	+15.0	+14.0	+13.5	Storage Temperature ... -62°C to +125°C
Gain Flatness (dB Max.)	< ±0.5	±0.8	±1.0	Maximum Case Temperature +125°C
Noise Figure (dB Max.)	+3.4	+5.5	+6.5	Maximum DC Voltage +18.0V
Power Output @ 1 dB Compression (dBm Min.)	+9.5	+9.0	+8.0	Maximum Continuous RF Input Power +13.0dBm
Two Tone 3rd Order Intercept Point (dBm Min.)	+24.0	+23.0	+18.0	Maximum Short Term RF Input Power +50.0 mW (1 minute Max.)
Two Tone 2nd Order Intercept Point (dBm Min.)	+30.0	+29.0	+28.0	Maximum Peak Power +0.5W (3µseconds Max.)
One Tone 2nd Harmonic Intercept Point (dBm Min.)	+36.0	+35.0	+32.0	"X" Series Burn-In Temperature +125°C
Input/Output VSWR (Max.)	<1.5:1	2.0:1	2.0:1	Weight +2.5 grams Max.
DC Current at 15 V (mA Max.)	+26.0	+30.0	+37.0	

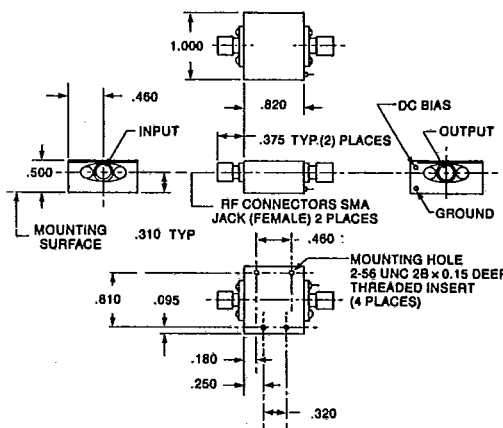
Outline Drawings

(For additional package configurations, see Section 9)

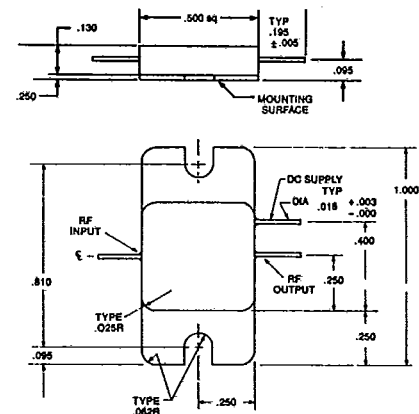
AH-55



CAH-55

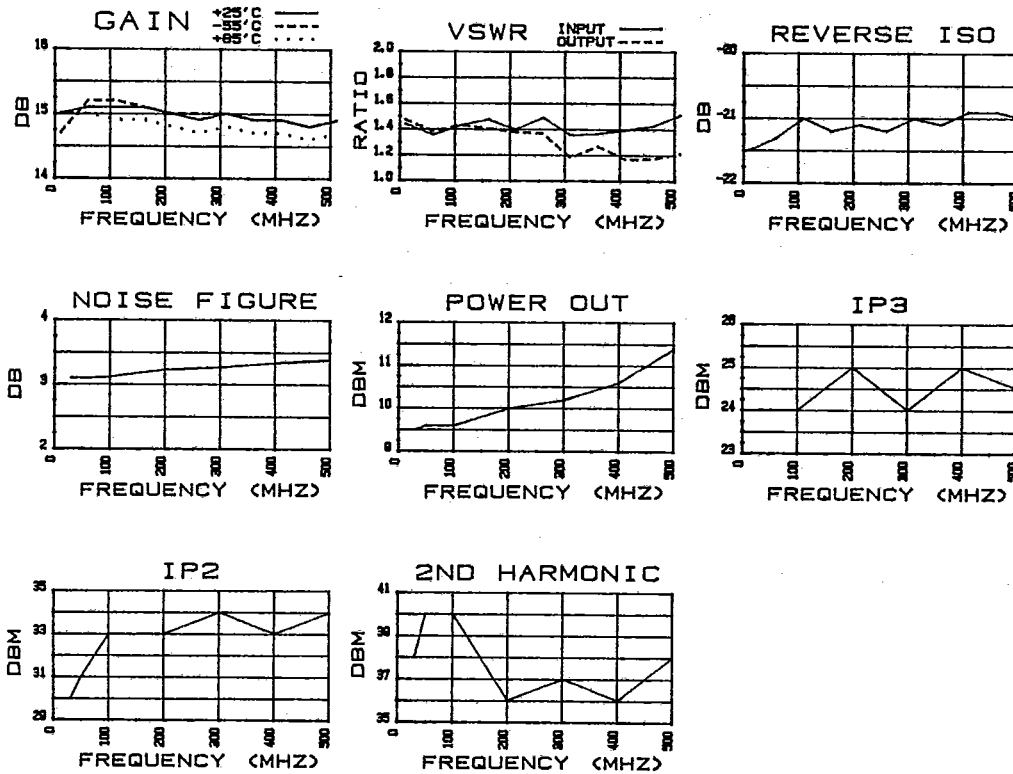


FPF-55



AH-55

Typical Performance



AH-55 23.9 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
10.000	-14.9	-157.5	15.00	-170.8	-21.50	12.5	-14.4	49.3
60.000	-16.4	140.0	15.10	171.5	-21.30	0.0	-15.9	124.3
110.000	-15.0	98.3	15.10	162.5	-21.00	100.8	-15.0	91.8
160.000	-14.3	70.0	15.10	153.2	-21.20	-4.0	-15.5	35.8
210.000	-15.6	26.5	15.00	145.8	-21.10	-5.2	-16.0	12.2
260.000	-14.1	-5.7	14.90	137.8	-21.20	-7.5	-16.2	-44.0
310.000	-16.4	-29.0	15.00	130.0	-21.00	-8.5	-21.6	-85.8
360.000	-16.1	-83.8	14.90	120.8	-21.10	-9.2	-18.5	-119.5
410.000	-15.6	-111.3	14.90	112.8	-20.90	-11.8	-22.3	169.0
460.000	-15.1	-157.8	14.80	105.3	-20.90	-14.5	-22.0	144.8
510.000	-13.8	175.8	14.90	96.8	-21.00	-15.7	-20.3	107.5

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
10.000	1.439	7.045	0.027	0.000	1.471
60.000	1.357	-2.000	0.127	0.986	1.382
110.000	1.433	-2.295	0.127	0.500	1.433
160.000	1.478	-2.841	0.127	0.514	1.404
210.000	1.398	-1.636	0.027	0.417	1.377
260.000	1.491	-0.932	-0.073	0.444	1.367
310.000	1.357	0.023	0.027	0.431	1.181
360.000	1.372	-0.532	-0.073	0.514	1.270
410.000	1.398	0.182	-0.073	0.444	1.166
460.000	1.427	1.386	-0.173	0.417	1.173
510.000	1.513	1.591	-0.073	0.472	1.214