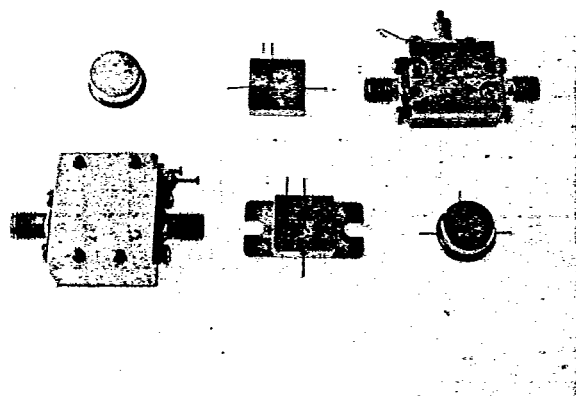


AH-63



5 to 1000 MHz TO-8 Cascadable Amplifier

- High Gain: +16.5dB
- Low Noise: +3.0dB
- Third Order: +17.0dBm
- Various Package Options (see photo)
Surface Mounted (SMT0-8), 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.)	5-1000	5-1000	5-1000
Small Signal Gain (dB Min.)	+16.5	+16.0	+15.5
Gain Flatness (dB Max.)	< ±0.3	±1.0	±1.0
Noise Figure (dB Max.)	+3.0	+4.0	+4.5
Power Output @ 1 dB Compression (dBm Min.)	+3.0	+2.0	+2.0
Two Tone 3rd Order Intercept Point (dBm Min.)	+17.0	+15.0	+12.0
Two Tone 2nd Order Intercept Point (dBm Min.)	+19.0	+17.0	+15.0
One Tone 2nd Harmonic Intercept Point (dBm Min.)	+25.0	+23.0	+20.0
Input/Output VSWR (Max.)	<1.7:1	2.0:1	2.0:1
DC Current at 15 V (mA Max.)	+14.0	+16.0	+18.0

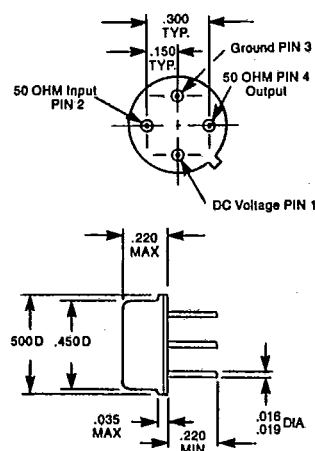
Maximum Ratings

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 +50.0 mW (1 minute Max.)
Maximum Peak
Power +0.5W (3μseconds Max.)
"X" Series Burn-In
Temperature +125°C
Weight +2.5 grams Max.

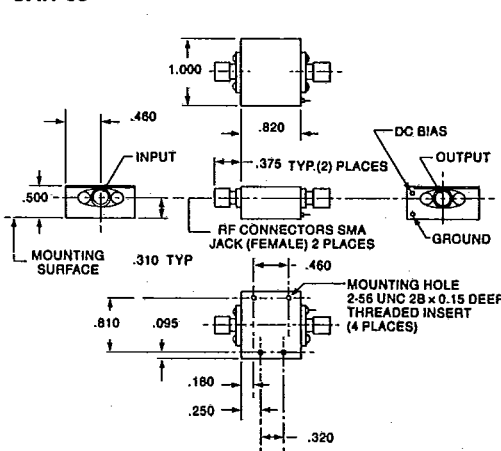
Outline Drawings

(For additional package configurations, see Section 9)

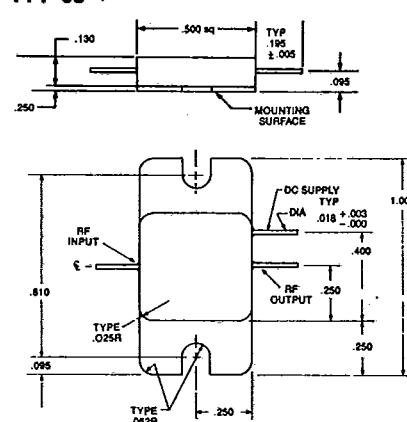
AH-63



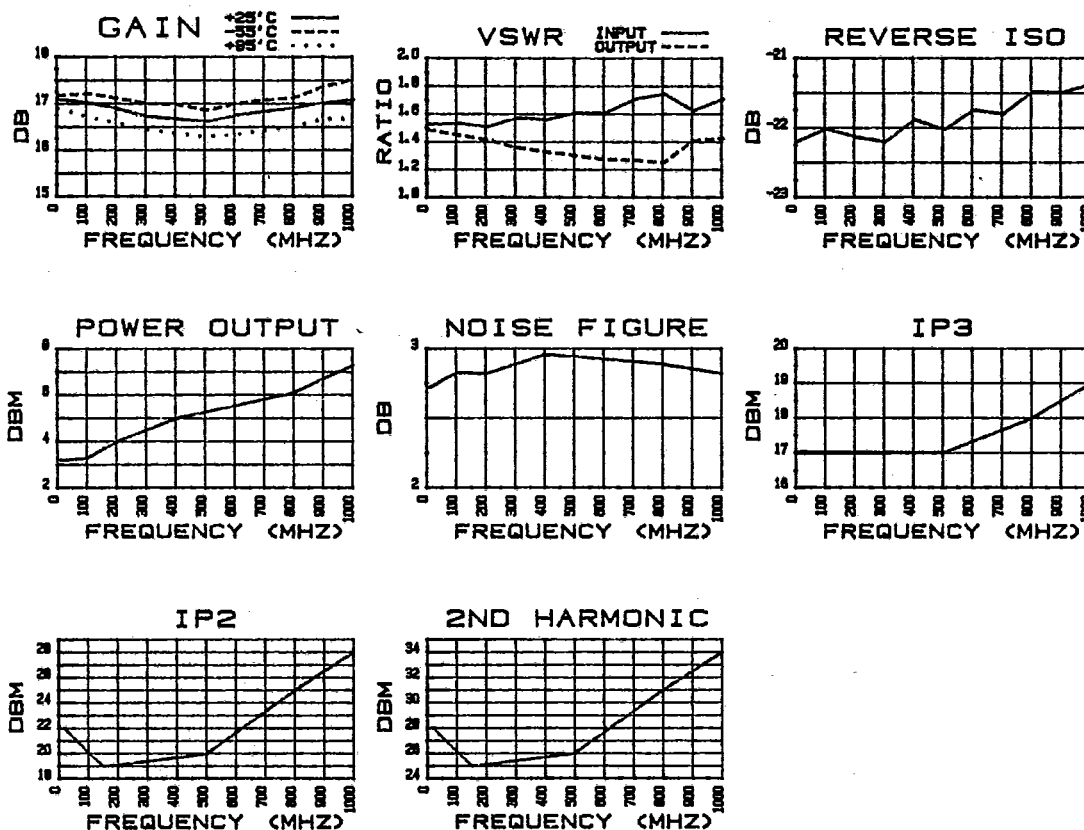
CAH-63



FPF-63



Typical Performance



AH-63 13.4 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	-13.7	-169.7	17.08	-174.1	-22.20	3.6	-14.2	-169.3
105.000	-13.6	179.7	17.01	164.5	-22.01	-8.6	-14.8	157.9
205.000	-13.9	171.4	16.88	145.8	-22.14	-12.6	-15.4	130.0
305.000	-13.1	170.6	16.72	133.1	-22.20	-17.8	-16.5	109.7
405.000	-13.3	161.6	16.66	115.2	-21.88	-23.5	-17.1	77.4
505.000	-12.7	154.5	16.60	103.2	-22.03	-29.5	-17.8	51.0
605.000	-12.7	145.8	16.74	85.4	-21.75	-34.5	-18.6	14.1
705.000	-11.7	133.1	16.83	73.3	-21.81	-39.9	-18.7	-16.4
805.000	-11.4	115.1	16.91	57.4	-21.48	-43.1	-19.2	-43.5
905.000	-12.5	94.2	17.01	40.1	-21.50	-53.7	-15.4	-75.6
1005.000	-11.7	63.0	17.09	22.0	-21.37	-61.2	-15.2	-100.8

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
5.000	1.522	4.783	0.212	0.000	1.483
105.000	1.530	-0.817	0.140	0.593	1.445
205.000	1.503	-3.772	0.016	0.520	1.411
305.000	1.571	-0.736	-0.150	0.353	1.354
405.000	1.555	-2.878	-0.211	0.497	1.323
505.000	1.608	0.880	-0.263	0.333	1.295
605.000	1.603	-1.180	-0.122	0.495	1.267
705.000	1.703	2.416	-0.033	0.338	1.262
805.000	1.742	2.247	0.040	0.442	1.245
905.000	1.620	0.697	0.148	0.481	1.409
1005.000	1.705	-1.640	0.221	0.502	1.423