

Casadable Thin Film Amplifier, 13 dB Gain

5 - 1000 MHz

AM-/AMC-176

V2.00

Features

- 4.0 dB Typical Noise Figure
- 13.5 dBm Typical Midband 1 dB Compression
- 1.25:1 Typical VSWR

Guaranteed Specifications*

(From -55°C to +85°C Case Temp)

Frequency Range	5-1000 MHz
Gain (+25°C) @ 500 MHz	13.2 ± 1 dB
Frequency Response	± 1 dB Max
Gain Variation with Temperature	± 1 dB Max
Output Power (1 dB Compression)	
5-1000 MHz	+ 12 dBm Min
Noise Figure	
5-1000 MHz	5.0 dB Max
Reverse Transmission	
	- 14 dB Max
	- 17 dB Typ
VSWR	1.8:1 Max
Intermodulation Intercept Point (for two-tone output power up to 0 dBm)	
Second Order	+ 37 dBm Min
Third Order	+ 25 dBm Min
Bias Power	+ 15 VDC @ 43 mA Max (38 mA, 570 mW Typical)

Operating Characteristics

Impedance	50 Ohms Nominal
Maximum Rating	
RF Input	+ 10 dBm
Environmental	
MIL-STD-883 screening available.	

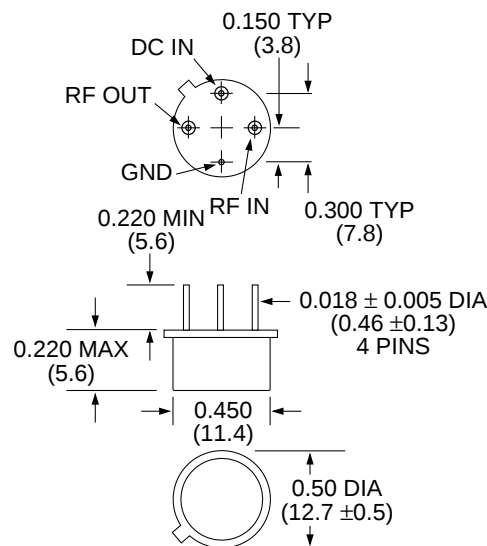
*All specifications apply when operated at +15 VDC, with 50 ohm source and load impedance.

Heat Sinking: Operation at case temperatures above 95°C is not recommended. Heat sinking adequate to dissipate 0.575 W must be provided in use.

Ordering Information

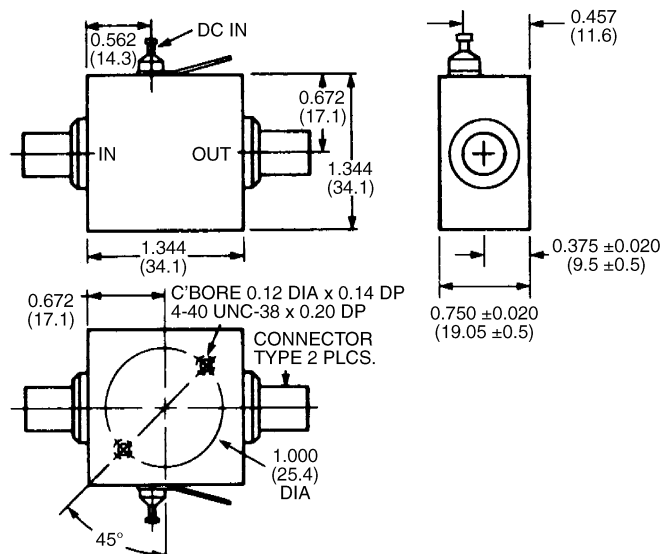
Model No.	Package
AM-176 PIN	TO-8-1
AMC-176 SMA	Connectorized

TO-8-1



Dimensions in () are in mm.
Unless Otherwise Noted: .xxx = ±0.010 (.xx = ±0.25)
.xx = ±0.02 (.x = ±0.5)
WEIGHT (APPROX.): 0.10 OUNCES 2.8 GRAMS

C-32



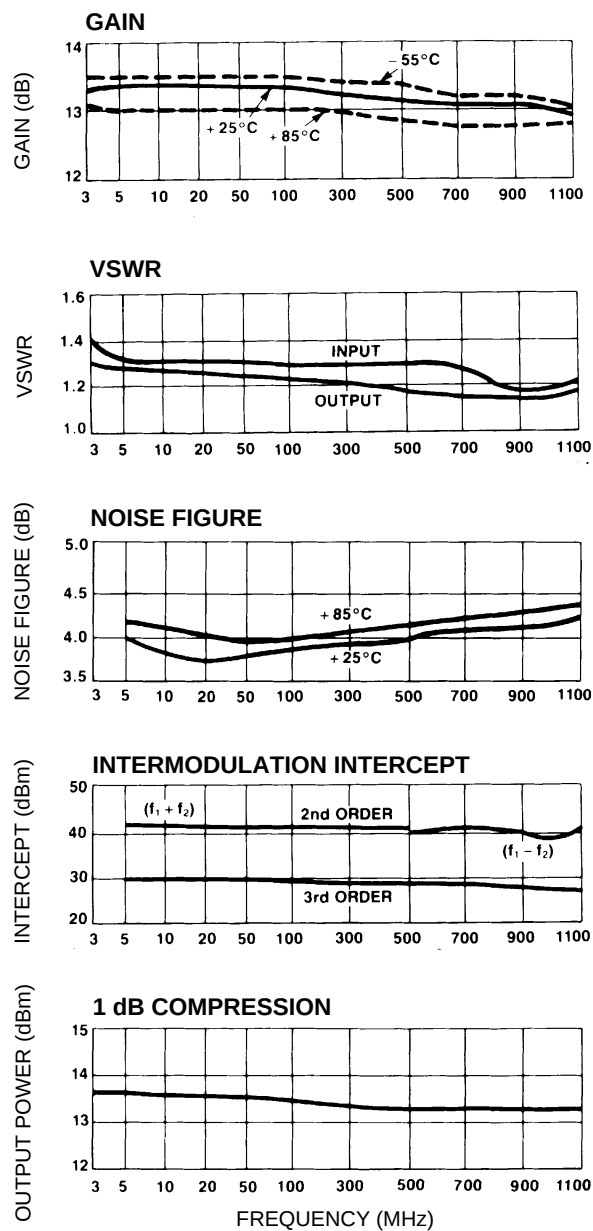
Dimensions in () are in mm.
Unless Otherwise Noted: .xxx = ±0.010 (.xx = ±0.25)
.xx = ±0.02 (.x = ±0.5)
WEIGHT (APPROX.): 1.62 OUNCES 46 GRAMS

Specifications Subject to Change Without Notice.

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Typical Performance



S-Parameter Data

AM-176 Freq.	S11 MAG	S11 ANG	S21 MAG	S21 ANG	S12 MAG	S12 ANG	S22 MAG	S22 ANG
5.0	0.14	151.3	4.59	-168.1	0.13	-0.9	0.12	144.6
10.0	0.14	168.4	4.67	-175.5	0.13	0.1	0.10	156.3
20.0	0.14	178.2	4.61	-179.6	0.13	0.0	0.09	166.5
50.0	0.14	167.9	4.61	174.5	0.13	-0.1	0.09	170.5
100.0	0.13	161.6	4.58	168.6	0.13	-1.0	0.08	166.8
250.0	0.12	132.4	4.56	150.1	0.14	-3.5	0.08	149.9
500.0	0.10	83.9	4.57	119.8	0.15	-9.0	0.07	121.3
750.0	0.08	39.7	4.52	89.1	0.16	-17.7	0.05	76.1
1000.0	0.04	-91.4	4.39	58.4	0.16	-28.4	0.07	-9.9

Frequency in MHz

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