

Low Noise Amplifier, 12 dB Gain 200 - 1000 MHz

AM-/AMC-142

V2.00

Features

- 2.2 dB Typical Midband Noise Figure
- +6 dBm Typical Midband Output Power
- +20 dBm Typical Midband Third Order Intercept

Guaranteed Specifications*

(From -55°C to +85°C Case Temp)

Frequency Range	200-1000 MHz
Gain (+25°C) @ 600 MHz	12 ± 0.6 dB
Frequency Response	+0.5, -0.8 dB Max
Gain Variation with Temperature	+0.8, -0.6 dB Max
Output Power (1 dB Compression)	+2 dBm Min
Noise Figure	3.8 dB Max
Reverse Transmission	-13 dB Max -15 dB Typ
VSWR	3.5:1 Max
Intermodulation Intercept Point (for two-tone output power up to -10 dBm)	
Second Order	+25 dBm Min
Third Order	+15 dBm Min
Bias Power	+15 VDC @ 15 mA Max (13 mA, 200 mW Typical)

Operating Characteristics

Impedance	50 Ohms Nominal
Maximum Rating	
RF Input	+20 dBm
Environmental	
MIL-STD-883 screening available.	

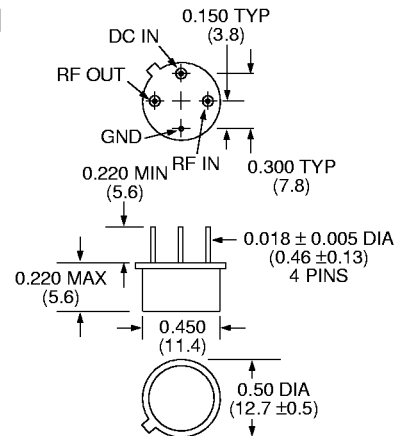
* All specifications apply when operated at +15 VDC, with 50 ohm source and load impedance.
This Product contains elements protected by United States Patent Number 3,624,536.

Ordering Information

Model No.	Package
AM-142* PIN	Pin
AMC-142 SMA	Connectorized

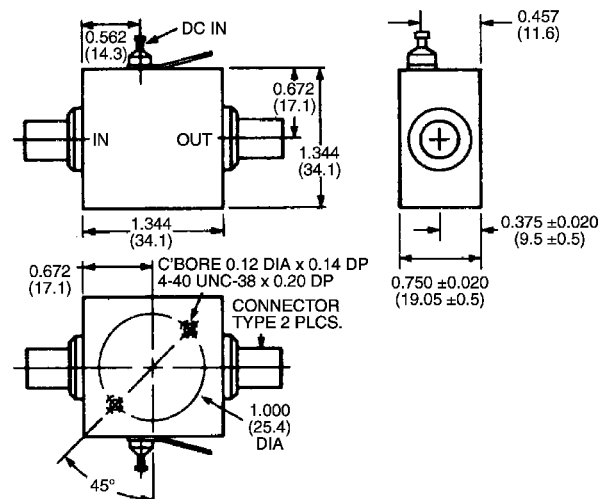
*Mounting kit part number AU00071 required for PCB applications.

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



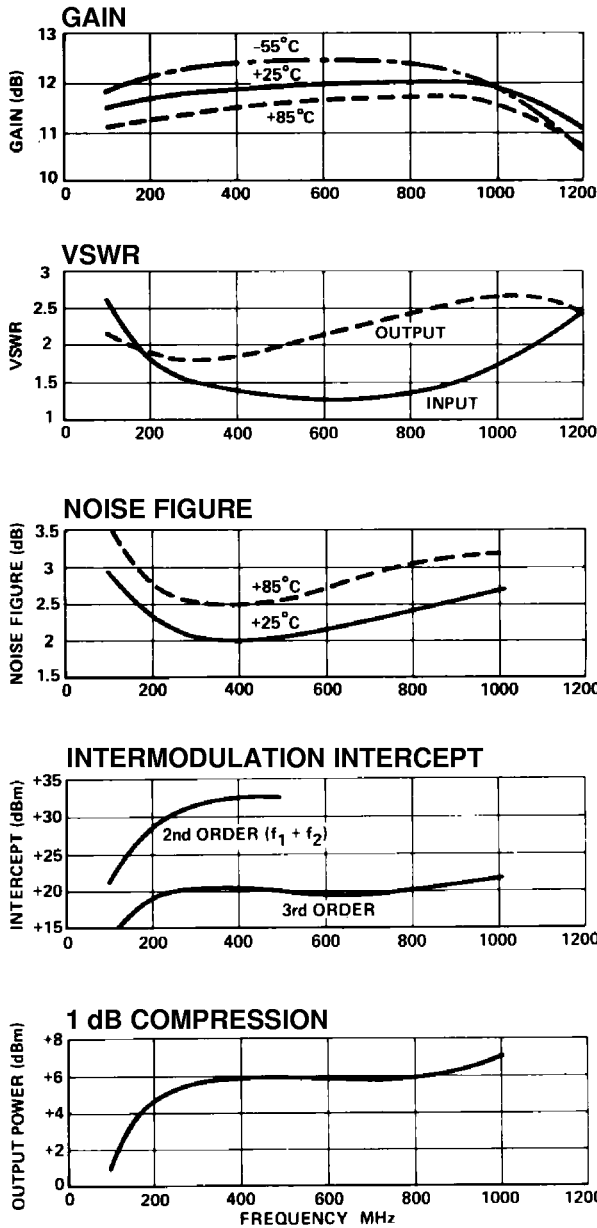
Dimensions in () are in mm.
Unless Otherwise Noted: .xxx = ±0.010 (.xx = ±0.25)
.xx = ±0.02 (.x = ±0.5)
WEIGHT (APPROX.): 1.62 OUNCES 46 GRAMS

Specifications Subject to Change Without Notice.

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Typical Performance



Typical S-Parameter Data

AM-142	S ₁₁		S ₂₁		S ₁₂		S ₂₂	
FREQUENCY	MAG	ANG	MAG	ANG	MAG	ANG	MAG	ANG
200.0	0.24	41.0	3.95	175.9	0.18	160.6	0.25	34.6
300.0	0.12	16.0	3.93	156.0	0.18	147.0	0.28	7.4
400.0	0.08	-6.4	3.97	140.8	0.17	134.9	0.31	-15.4
500.0	0.07	142.1	3.98	126.6	0.17	112.7	0.33	-35.9
600.0	0.06	127.8	4.04	112.9	0.17	110.4	0.33	-54.7
700.0	0.12	109.4	4.07	99.1	0.17	98.2	0.34	-73.6
800.0	0.18	90.1	4.12	84.5	0.16	86.5	0.36	-92.0
900.0	0.24	69.4	4.20	68.9	0.15	74.7	0.37	-110.7
1000.0	0.31	47.9	4.15	50.4	0.15	63.9	0.38	-129.9

Frequency in MHz