



High Performance Amplifier, 8 dB Gain, 30 - 250 MHz

AM-119/AMC-119

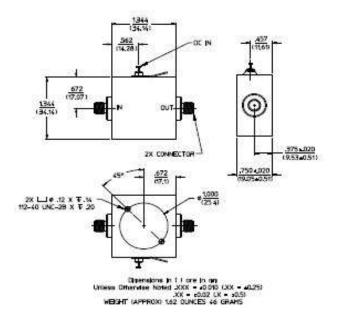
Features

- 2.3 dB Typical Midband Noise Figure
- +23 dBm Typical Midband Output Power
- +40 dBm Typical Midband Third Order Intercept

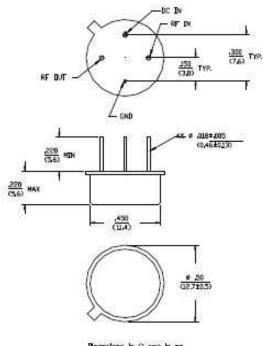
Description

M/A-COM's AM-119 is a coupler feedback amplifier with high intercept and compression points. The use of coupler feedback minimizes noise figure and current in a high intercept amplifier. This amplifier is packaged in a TO-8 package. Due to the internal power dissipation the thermal rise minimized. The ground plane on the PC board should be configured to remove heat from under the package. AM-119 is ideally suited for use where a high intercept, high reliability amplifier is required.

C-32



TO-8-1



Discriptors in O and in an Unices Otherwise Notes: $(XX = \pm 0.00)$, $(XX = \pm 0.05)$ VEIGHT (APPROXIMATION OUR DINCES 2.8 (SAMS)

Absolute Maximum Ratings ¹

Parameter	Absolute Maximum		
Max. Input Power	+13 dBm		
Vbias	+15.75 V		
Operating Temperature	-55°C to +85°C		
Storage Temperature	-65°C to +125°C		

1. Operation of this device above any one of these parameters may cause permanent damage.

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AM-119/AMC-119 V3

Electrical Specifications: ^{2, 3} T_A = -55°C to +85°C Case Temperature

Parameter	Test Conditions	Frequency	Units	Min.	Тур.	Max.
Gain	@+25°C	250 MHz	dB	7.5	8.0	8.5
Frequency Response	_	30 - 250 MHz	dB	_	_	±0.75
Gain Variation with Temperature	_	30 - 250 MHz	dB	_	_	±1.0
1 dB Compression	Output Power	30 - 250 MHz	dBm	+20	_	_
Noise Figure	_	30 - 250 MHz	dB	_	_	3.5
Reverse Transmission	_	30 - 250 MHz	dB	_	-11.0	-9.5
VSWR	_	30 - 250 MHz	Ratio	_	_	2.3:1
Output IP ₂	Two-Tone inputs up to +10 dBm	30 - 250 MHz	dBm	+39	_	_
Output IP ₃	Two-Tone inputs up to +10 dBm	30 - 250 MHz	dBm	+34	_	_
Vbias	_	_	VDC	+14.5	+15.0	+15.5
Ibias	Vbias = +15.0 VDC	_	mA	_	50	60
Power Dissipation	@ +15 V Bias	_	mW	_	750	_

^{2.} All specifications apply when operated at +15 VDC, with 50 ohms source and load impedance.

^{3.} Heat Sinking: Operation at case temperature above 95°C is not recommended. Heat sinking adequate to dissipate 1W must be provided in use.

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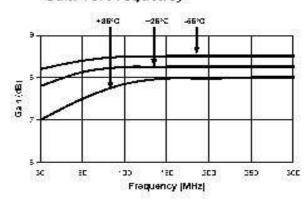


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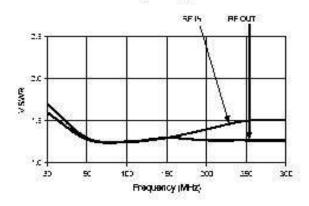
AM-119/AMC-119

Typical Performance Curves

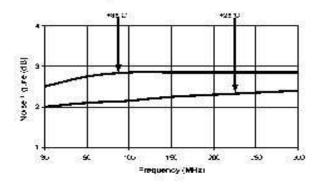
Gain vs. Frequency



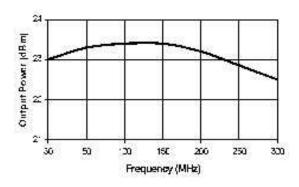
VSWR vs. Frequency



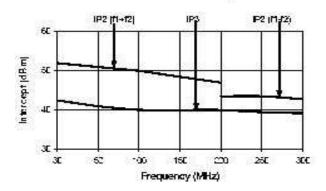
Noise Figure



1 dB Compression



Intermodulation Intercept



Ordering Information

Part Number	Package		
AM-119 PIN ⁴	TO-8-1		
AMC-119 SMA	Connectorized		

4. Mounting kit part number AU00071 required for PCB applications.

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