



Cascadable Thin Film Amplifier, 28 dB Gain, 5 - 1000 MHz

AM-182/AMC-182

Features

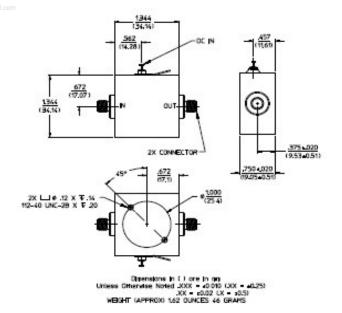
- 28.5 dB Typical Gain
- 2.7 dB Typical Low Noise

Description

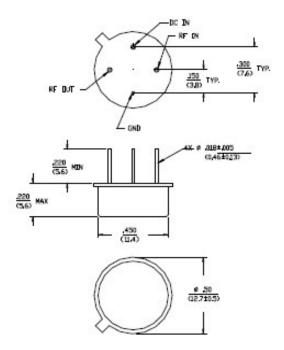
M/A-COM's AM-182 is a high gain feedback amplifier with high intercept and compression points. This amplifier is packaged in a TO-8 package. Due to the internal power dissipation the thermal rise should be minimized. The ground plane on the PC board should be configured to remove heat from under the package. AM-182 is ideally suited for use where a high intercept, high reliability amplifier is required.

C-32

information.



TO-8-1



. Dimensions in O are in nn. Unless Ditherwise Notes: $XXX = \pm 0.00$ ($XX = \pm 0.25$) VEICHT (APPRIDG 0.00 DIMES 2.8 GRAMS

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.

[•] North America Tel: 800.366.2266 / Fax: 978.366.2266

[•] Europe Tel: 44.1908.574.200 / Fax: 44.1908.574.300

Asia/Pacific Tel: 81.44.844.8296 / Fax: 81.44.844.8298





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

Parameter	Test Conditions	Frequency	Units	Min.	Тур.	Max.
Gain	@+25°C	300 MHz	dB	27.2	28.2	29.2
Frequency Response	_	5 - 1000 MHz	dB	_	_	±1.2
Gain Variation with Temperature	_	5 - 1000 MHz	dB	_	_	±1.2
1 dB Compression	Output Power	5 - 1000 MHz	dBm	+9	_	_
Noise Figure	_	5 - 1000 MHz	dB	_	_	4.5
Reverse Transmission	_	5 - 1000 MHz	dB	1	-36	-32
VSWR	_	5 - 1000 MHz	Ratio	-	-	2.0:1
Output IP ₂	Two-Tone inputs up to 0 dBm	5 - 1000 MHz	dBm	+28	_	_
Output IP ₃	Two-Tone inputs up to 0 dBm	5 - 1000 MHz	dBm	+18	-	_
Vbias	_	_	VDC	+14.5	+15.0	+15.5
Ibias	Vbias = +15.0 VDC	_	mA	_	44	50
Power Dissipation	@ +15 V Bias	_	mW	_	660	_

^{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 800 mW must be provided in use.

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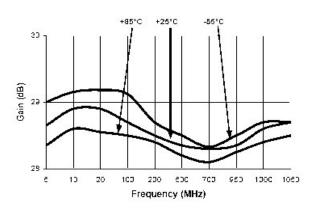


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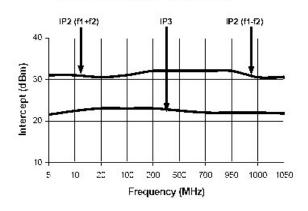
Typical Performance Curves

Gain vs. Frequency

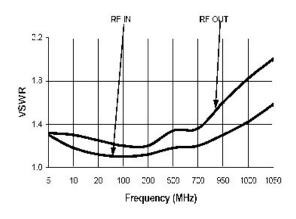


Noise Figure +85°C +26°C 2.5 2.0 5 10 20 100 200 500 700 950 1000 1250 Frequency (MHz)

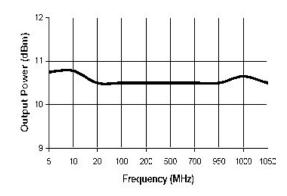
Intermodulation Intercept



VSWR vs. Frequency



1 dB Compression



Ordering Information

Part Number	Package
AM-182 PIN	TO-8-1
AMC-182 SMA	C-32

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