



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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Cascadable Amplifier 10 to 500MHz

Rev. V6

Features

- HIGH POWER OUTPUT: +21 dBm (TYP.)
- HIGH THIRD ORDER IP3: +33 dBm (TYP.)
- HIGH EFFICIENCY: 52 mA (TYP.) @ +15 Vdc

Description

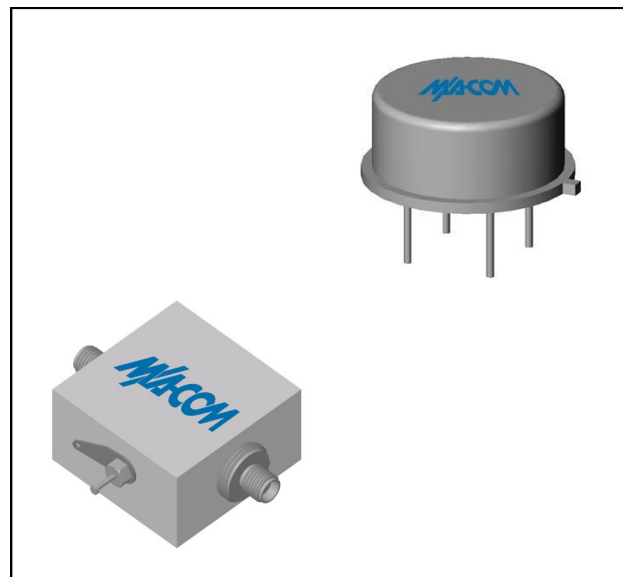
M/A-COM's AM-147 is a coupler feedback amplifier with high intercept and compression points. The use of coupler feedback minimizes noise figure and current in a high intercept amplifier. This amplifier is packaged in a TO-8 package. Due to the internal power dissipation the thermal rise minimized. The ground plane on the PC board should be configured to remove heat from under the package. AM-147 is ideally suited for use where a high intercept, high reliability amplifier is required.

Ordering Information

Part Number	Package
AM-147-PIN	TO-8
AMC-147- SMA *	Connectorized

* SMA Connectorized part is not RoHs compliant.

Product Image



Electrical Specifications: $Z_0 = 50\Omega$, $V_{CC} = +15 V_{DC}$

Parameter	Units	Typical	Guaranteed	
		25°C	0° to 50°C	-54° to +85°C*
Frequency	MHz	3-500	5-500	5-500
Small Signal Gain (min)	dB	17.0	16.0	15.5
Gain Flatness (max)	dB	±0.4	±0.8	±1.0
Reverse Isolation	dB	20.0	16.0	
Noise Figure (max)	dB	3.4	4.2	4.7
Power Output @ 1 dB comp. (min)	dBm	20.0	19.0	18.5
IP3	dBm	+31		
IP2	dBm	+40		
Second Order Harmonic IP	dBm	+46		
VSWR Input / Output (max)		1.7:1 / 1.7:1	1.9:1 / 1.9:1	2.0:1 / 2.0:1
DC Current @ 15 Volts (max)	mA	52	56	58

Absolute Maximum Ratings

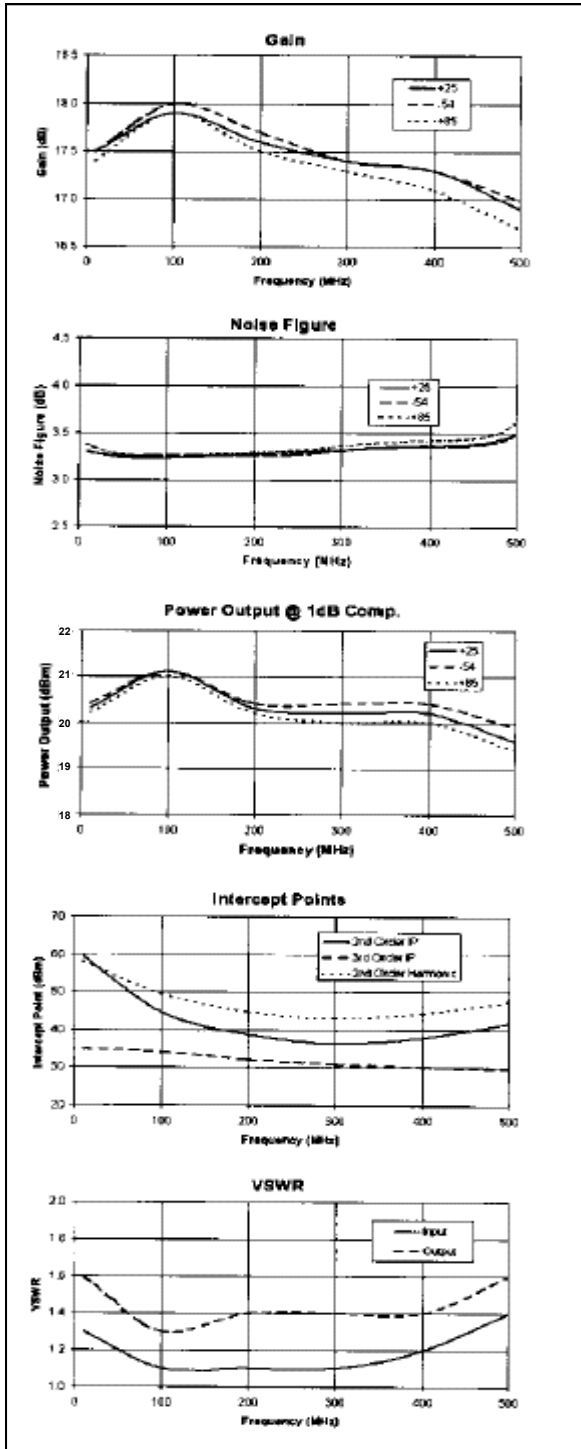
Parameter	Absolute Maximum
Storage Temperature	-62°C to +150°C
Case Temperature	125°C
DC Voltage	+17 V
Continuous Input Power	+13 dBm
Short Term Input power (1 minute max.)	100 mW
Peak Power (3 µsec max.)	0.5 W
"S" Series Burn-In Temperature (case)	125°C

Thermal Data: $V_{CC} = +15 V_{DC}$

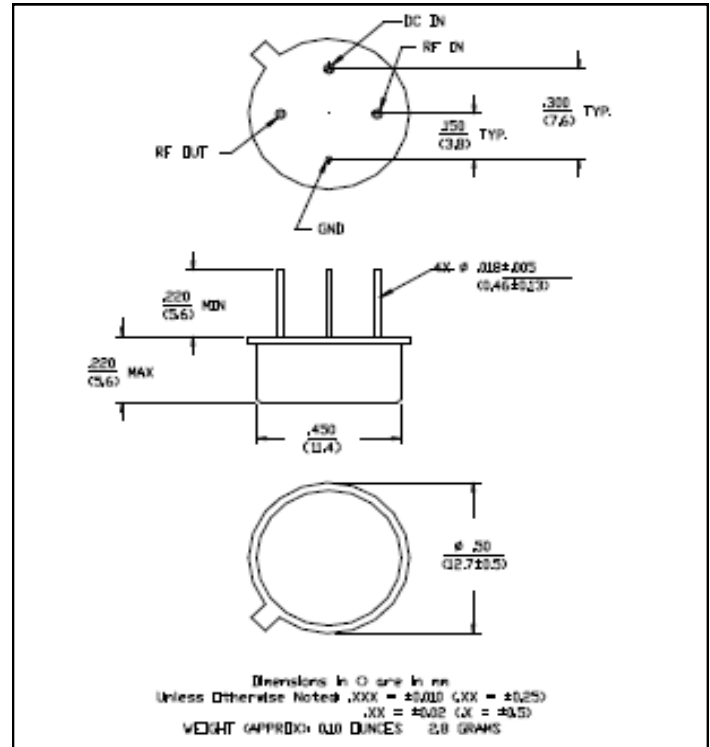
Parameter	Rating
Thermal Resistance θ_{jc}	143°C/W
Transistor Power Dissipation P_d	0.47 W
Junction Temperature Rise Above Case T_{jc}	68°C

1 * Over temperature performance limits for part number AMC-147, guaranteed from 0°C to +50°C only.

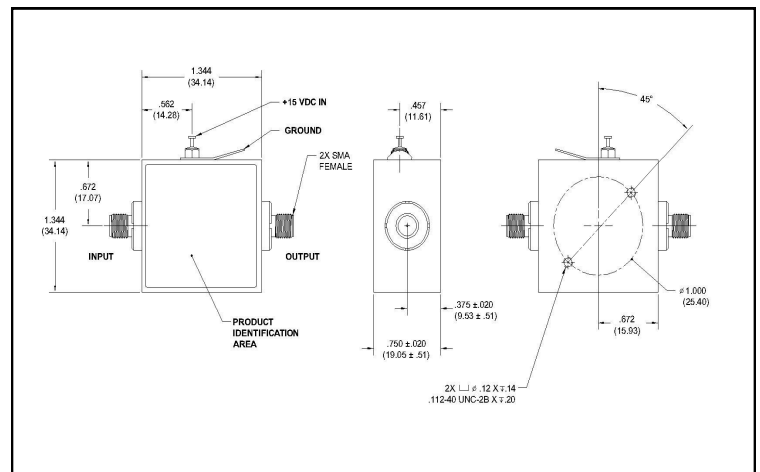
Typical Performance Curves at +25°C



Outline Drawing: TO-8-1



Outline Drawing: SMA Connectorized *



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