PAW1027-1

RF Linear Hybrid Amplifier
35 to 500 MHz

Rev. V3 Preliminary

Features

- ULTRA HIGH LINEARITY
- HIGH GAIN: 38.0 dB (TYP.)
- LOW NOISE FIGURE 4.5 dB (TYP.)
- OPERATION OVER A WIDE VOLTAGE RANGE

Description

The PAW1027-1 linear power amplifier is a discrete hybrid design, which uses thick film solder manufacturing processes for accurate performance and high reliability. The design has 2 gain stages, using a push pull cascode circuit configuration. Performance is very linear over a broadband frequency range, making it particularly suited for CATV, and commercial & military radio applications.

Product Image

Ordering Information

Part Number	Package
PAW1027-1	SOT115J

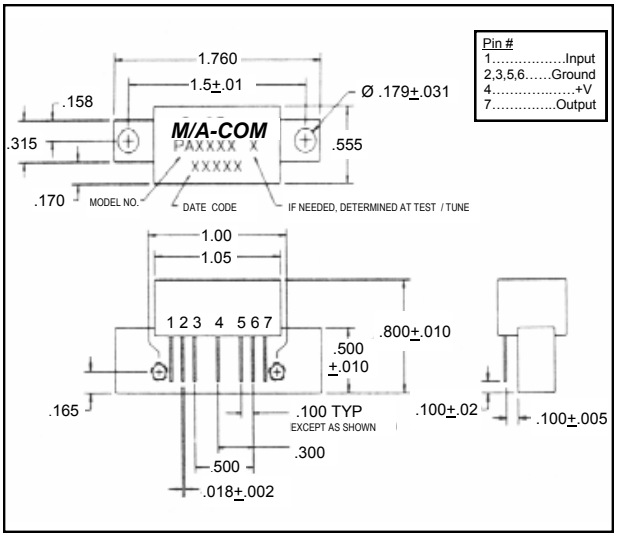
Electrical Specifications: Z_0 = 50Ω, V_{CC} = +24 V_{DC}

Parameter	Units	Typical	Guaranteed
		25ºC	-40°C to +70°C
Frequency	MHz	35-500	35-500
Power Gain (Min/Max)	dB	38.0	36.0 / 40.0
Gain Flatness (max) f = 40 to 500 MHz	dB	0.5	1.0
Input / Output Return Loss (min) f = 50 to 500 MHz	dB	16.0	12.0
Composite Triple Beat (CTB) 60 channels flat V_{out} = +46 dBmV	dB	-59.0	
Cross Modulation (XMOD) 60 channels flat V_{out} = +46 dBmV	dB	-59.0	
Second Order IMD 2 tone V_{out} = +46 dBmV f_1 = 50 MHz, f_2 = 500 MHz	dB	-64.0	
Noise Figure (max) f = 500 MHz	dB	4.2	6.0
Total Current (max)	mA	300	350

Absolute Maximum Ratings

Parameter	Absolute Maximum
Storage Temperature	-40ºC to +85ºC
Operation Base Temperature	+70ºC
RF Input Power	+14 dBm
DC Voltage	+28 volts

Outline Drawing: SOT115J *



* Dimensions are inches ±0.015 unless otherwise specified.