

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.

Ordering Information

Part Number	Package
PAW1027-1	SOT115J

Electrical Specifications: $Z_0 = 50\Omega$, $V_{CC} = +24 V_{DC}$

Parameter	Units	Typical	Guaranteed
		25°C	-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

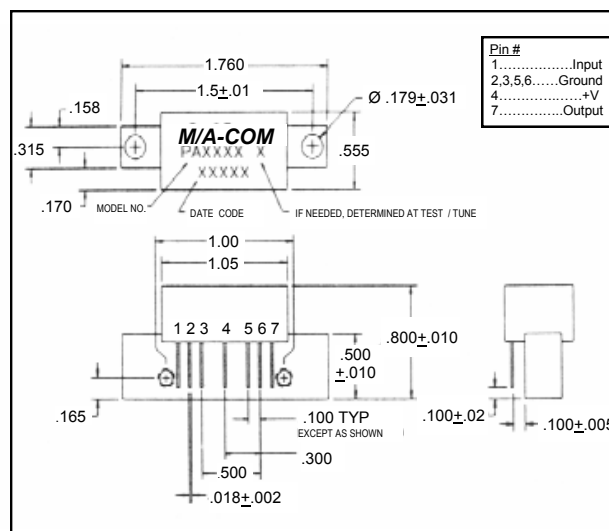
Product Image



Absolute Maximum Ratings

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

Outline Drawing: SOT115J *



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