

RF Linear Hybrid Amplifier 35 to 500 MHz

PAW1027-1

V3

Features

- ULTRA HIGH LINEARITY
- LOW NOISE FIGURE 4.5 dB (TYP.)
- RUGGED CONSTRUCTION
- 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
		25°C
Frequency	MHz	35-500
Power Gain (min) $f = 35 \text{ MHz}$	dB	37.0 / 38.0
Power Gain (max) $f = 35 \text{ MHz}$	dB	39.5 / 40.0
Gain Flatness (max) $f = 40 \text{ to } 500 \text{ MHz}$	dB	0.6
Input / Output Return Loss (min) $f = 50 \text{ to } 500 \text{ MHz}$	dB	14.0
Composite Triple Beat (CTB) 60 channels flat $V_{out} = +46 \text{ dBmV}$	dB	-59.0
Cross Modulation (XMOD) 60 channels flat $V_{out} = +46 \text{ dBmV}$	dB	-59.0
Second Order IMD 2 tone $V_{out} = +46 \text{ dBmV}$ $f_1 = 50 \text{ MHz}$, $f_2 = 500 \text{ MHz}$	dB	-64.0
Noise Figure (max) $f = 500 \text{ MHz}$	dB	5.0
Total Current (max)	mA	340

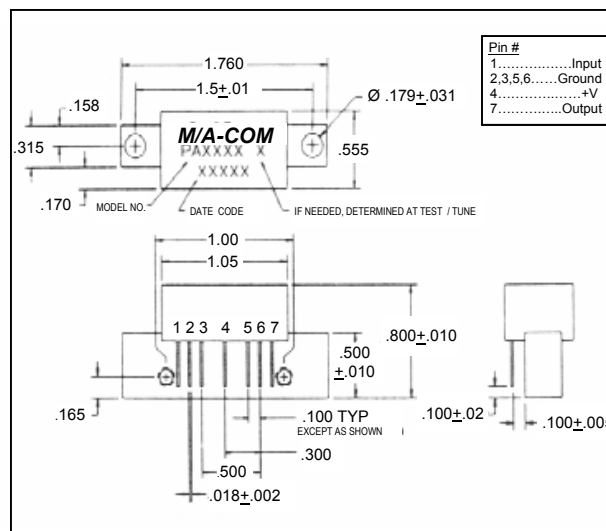
Product Image



Absolute Maximum Ratings

Parameter	Absolute Maximum
Storage Temperature	-40°C to +100°C
Operation Base Temperature	+85°C
RF Input Voltage	+14 dBm
DC Voltage	+28 volts

Outline Drawing: SOT115J *



* Dimensions are inches ± 0.015 unless otherwise specified.