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

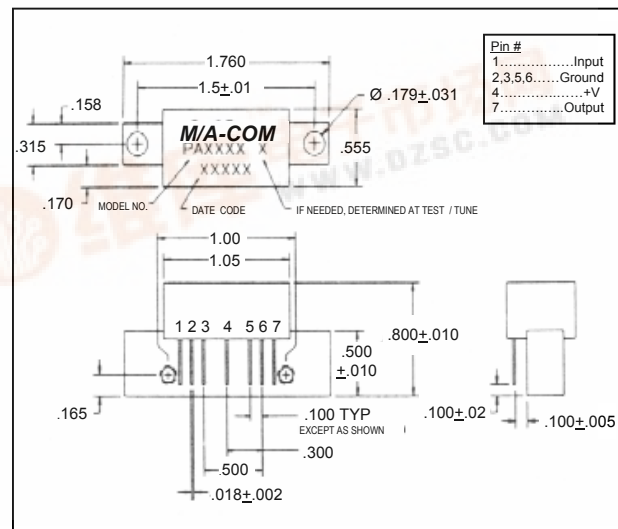| Part Number	Package
PAW1027-1	SOT115J

Product Image

Absolute Maximum Ratings

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

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

Parameter	Units	Typical
		25ºC
Frequency	MHz	35-500
Power Gain (min) f = 35 MHz	dB	37.0 / 38.0
Power Gain (max) f = 35 MHz	dB	39.5 / 40.0
Gain Flatness (max) f = 40 to 500 MHz	dB	0.6
Input / Output Return Loss (min) f = 50 to 500 MHz	dB	14.0
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	5.0
Total Current (max)	mA	340

Outline Drawing: SOT115J [*]

Pin #
1..................Input
2,3,5,6......Ground
4....................+V
7...............Output

M/A-COM
PAXXXX X
XXXXX

1.760
1.5±.01
.158
.315
.170   MODEL NO.
Ø .179±.031
.555
DATE CODE   IF NEEDED, DETERMINED AT TEST / TUNE

1.00
1.05
1 2 3   4   5 6 7
.800±.010
.500 ±.010
.165
.100 TYP EXCEPT AS SHOWN
.300
.500
.018±.002
.100±.02
.100±.005

[*]   Dimensions are inches ±0.015 unless otherwise specified.

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