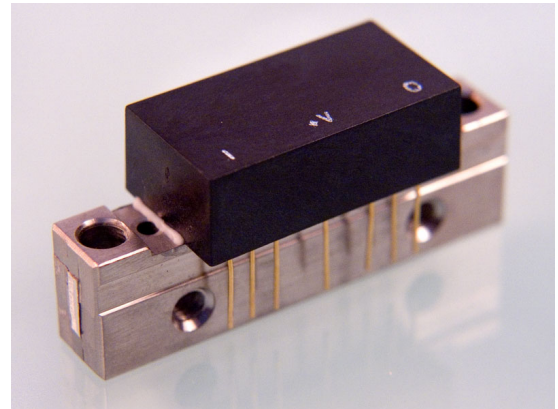


ASC2870

20 – 400 MHz 34 dB CATV Linear Amplifier

Features: (typical values)

- Output Power – 500mW. @ 1dB. compression, f=400 MHz
- Noise Figure – 7.5 dB. Typ @ f = 400 MHz
- IP3 – 45 dBm. @ f = 300 MHz
- Usable for 50 – 100-ohm systems
- Unconditional Stability
- No external components required



Maximum Ratings

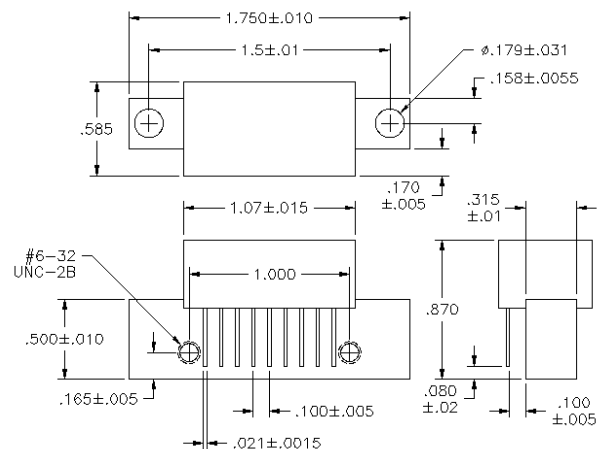
Storage temperature -55°C to +125°C
 DC Operating Voltage +28.0 volts
 RF Input Voltage +5 dBm. Max.
 Operating Base Temp. -40 to +85°C

Specifications @ Tcase = 25°C, Vcc = 24V, 50-ohm systems unless otherwise noted.

Parameter	Typical Conditions	Min Value	Max Value	Units
Frequency Range		20	400	MHz.
Power Gain		32.5	35.5	dB.
Gain Flatness (peak to peak)		±0.5	±1.0	dB.
Input/Output VSWR (20-400MHz)	Input	1.5	2.0:1	-
	Output	1.8		
Noise Figure	F = 30 MHz	4.5	6.0	dB.
	F = 400 MHz	7.5	8.5	
Power Output- 1db Compression	f = 225 MHz	850	800	mW.
	f = 400 MHz	500		
Third Order Intercept	F1 = 300 MHz	45	42	dBm.
Second Harmonic Distortion (Tone @ 100 mW, f2H = 20 – 400 MHz)		-52	-45	dB
PEP @ 32dB IMD		500	400	mW
Supply Current		300	330	mA.

Pin Configuration

PIN#	Description
1	Input
2,3,7,8	Ground
5	+V.
9	Output
4, 6	Not used



FUNCTIONAL BLOCK DIAGRAM

