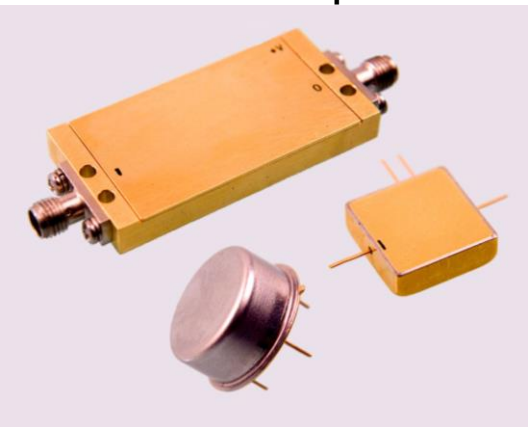
ASC2274

1 – 30 MHz
Push-Pull Amplifier



Features: (typical values)

- Low Noise Figure ……..... 3.7 dB.
- P1dB ……..…… 28 dBm.
- Gain ……..……... 19 dB.
- No external components required

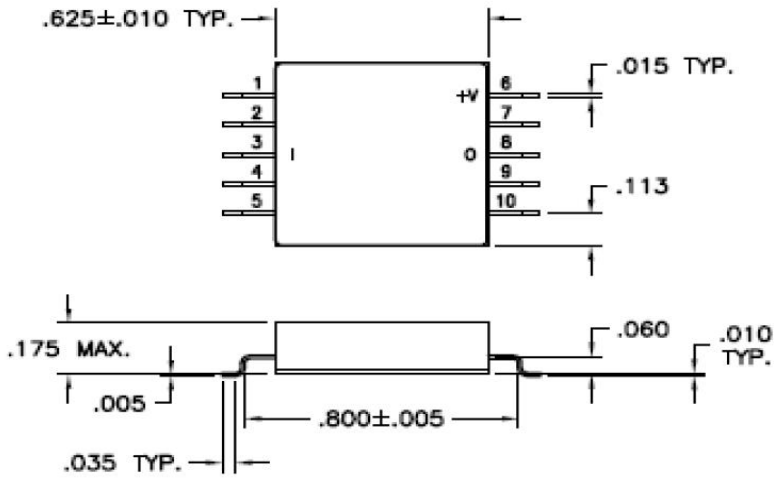
Maximum Ratings

Operating Temperature …… -20˚C to +85˚C
Storage Temperature ……..…… -40˚C to +125˚C
DC Voltage …….. +12.0volts
RF Input Power ……...…..…….. 29 dBm.
Case Temperature ……..... +100˚C

Specifications (Referenced to 50 ohms)

Parameter	Typical Conditions	Min Value	Max Value	Units
Frequency		1	30	MHz.
Gain (5MHz to 1000MHz)	19	18		dB.
Gain Flatness p-p	0.3		0.5	dB.
Pout @ P1dB	+28			dBm.
Noise Figure	3.7		4.5	dB.
IP3 @ 15dbm per tone	42	40		dBm
IP2 @ 15dbm per tone	80	70		dBm
VSWR In/Out	1.3:1		1.5:1	Ratio
Impedance, Input/Output	50 Ohm			
Supply Required	+12/200		+12/250	v/mA.

OUTLINE



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AMPLIFIER SOLUTIONS CORPORATION

ASC2274

FINAL ELECTRICAL TEST REQUIREMENTS

TEST **Vdc +12V**	**LIMITS** **Tc = 0^0 C / 25^0 C / 50^0 C**	**ACTUAL DATA**
Gain 1 to 30 MHz	18.0 dB min 19.0 dB Typ	19.1 19.3
Gain Flatness 1 to 30 MHz	0.5 dB p-p max	0.2
DC Current at +12 Vdc	250 mA max	193
Input VSWR 1 to 30 MHz	1.5 : 1 max	1.22
Output VSWR 1 to 30 MHz	1.5 : 1 max	1.28
Noise Figure 1 to 30 MHz	3.2 dB max 3.1 dB Typ	3.07
P 1.0 dB Compression 1 to 30 MHz	29 dBm Typ	27.5
IP3 with Pout = +15.0 dBm each tone 1) F1/F2 = 14/16 MHz ,Fc = 12/18 MHz	40.0 dBm min 42.0 dBm typ	42.5
IP2 @ Pout = +15.0 dBm each tone 1) F1+F2 = 14+16 MHz, Fc = 30MHz 2) F2-F1 = 16-14 MHz , Fc = 2 MHz	75.0 dBm min 85.0 dBm Typ	77.0
Stability Test : For all frequencies Where $\lvert S21 \rvert$ > 0dB	0 dB max	<0

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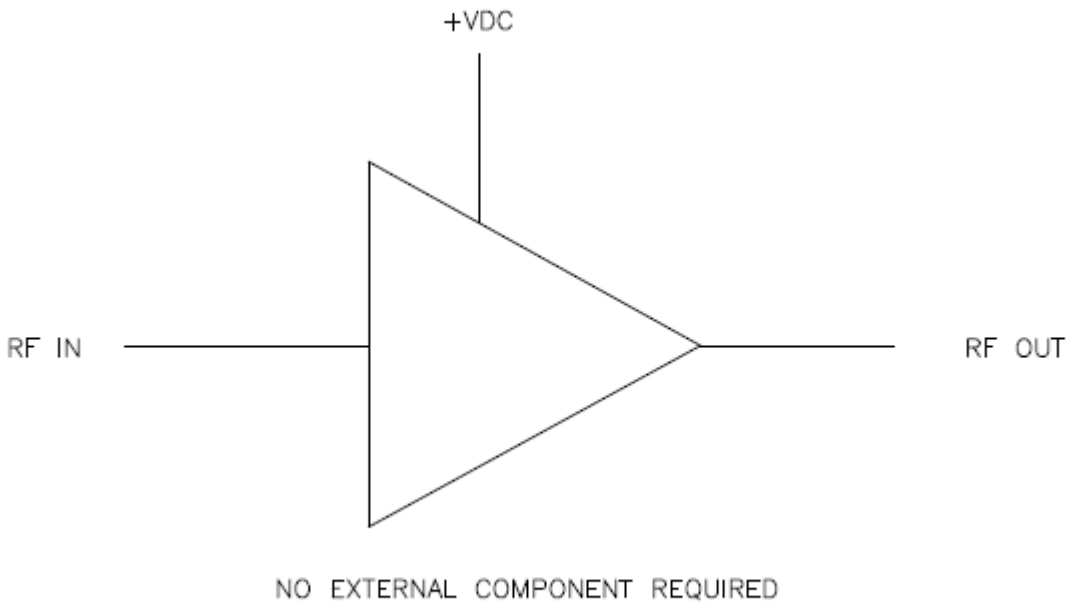
FUNCTIONAL BLOCK DIAGRAM



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