

# ASC2860

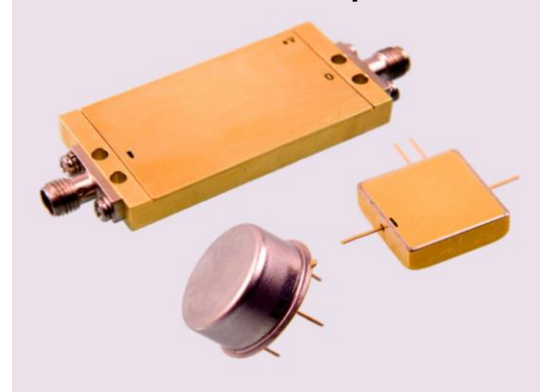
### Features: (typical values)

- Output Power ..... 18.0 dBm.
- Noise Figure ..... 1.0 dB.
- High Gain ..... 23.0 dB.
- No external components required

### Maximum Ratings

Storage Temperature ..... -62°C to +125°C  
 DC Voltage ..... +15 volts  
 RF Input Power ..... +10 dBm.  
 Case Temperature ..... +125°C

### 30-500 MHz Cascadable Amplifier

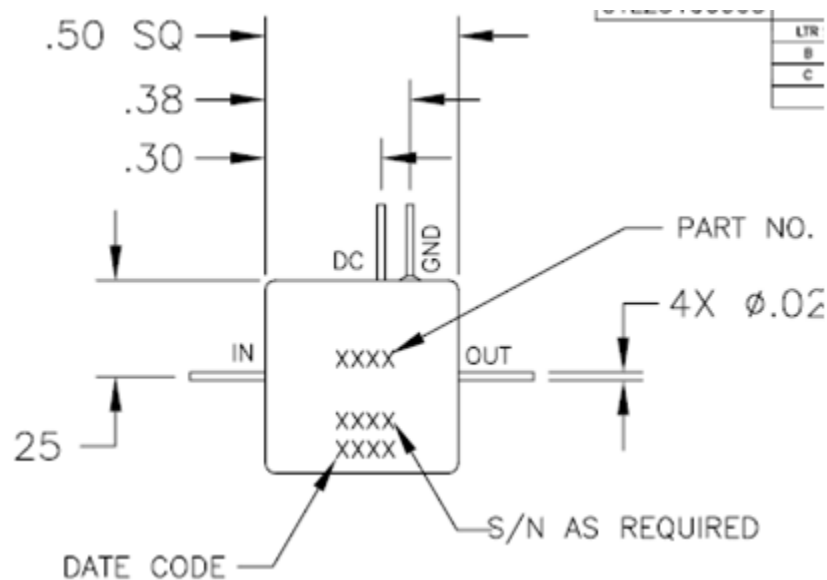


Specifications (Referenced to 50 ohms)

Parameter	Typical Conditions	Min Value	Max Value	Units
Frequency		30	500	MHz.
Gain	23	21.5		dB.
Gain Flatness	±0.6		±1.0	dB. p-p
Gain Var. over temp	0.6			dB.
Pout @ 1dB Comp	+18.0	+17.0		dBm.
Noise Figure	1.0		4.5	dB.
Reverse Isolation	-29		-27	dB.
IP <sub>3</sub> /IP <sub>2</sub> (two-tone)*	33/43			dBm.
VSWR In/Out	1.5:1		2.0:1	
Supply Required	+15/47		+15/52	v/mA.

Min. and max. values are from -55°C to +85°C

\*IP<sub>3</sub> and IP<sub>2</sub> are in band output intercept points

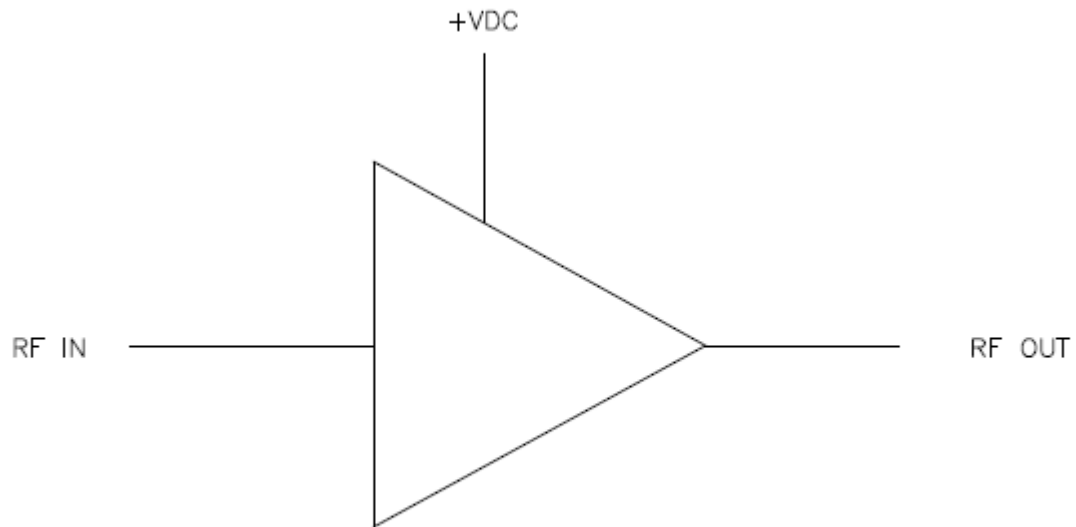


**DESCRIPTION: ASC2860**

**+25°C**

TEST	LIMITS / SN	ACTUAL DATA
GAIN 30 MHz to 500 MHz	21.5 dB min	23.5
	23.0 dB Typ	23.8
GAIN FLATNESS 30 MHz to 500 MHz	±1.0 dB max	±0.15
Spurious Response	Accept/Reject	AC
REVERSE ISOLATION 30 MHz to 500 MHz	-27 dB max	-27
DC CURRENT AT +15 Vdc	52mA max	51
INPUT VSWR 30 MHz to 500 MHz	2.0 : 1 max	1.26
OUTPUT VSWR 30 MHz to 500 MHz	2.0 : 1 max	1.67
NOISE FIGURE 30 MHz to 500 MHz	4.5 dB max	0.68
P1.0 dB COMPRESSION 30 MHz to 500 MHz	17.0 dBm min	17.8
IP3 WITH Pout = +5.0 dBm EACH TONE 1) F1/F2= 31/32MHz, Fc=30/33MHz 2) F1/F2= 251/252MHz, Fc=250/253MHz 3) F1/F2= 498/499MHz, Fc=497/500MHz	33.0 dBm typ	31.0
IP2 WITH Pout = +5.0 dBm EACH TONE 1) F1+F2= 30 + 470 MHz; Fc= 500 MHz 2)F1-F2= 500 - 470 MHz; Fc= 30 MHz	43.0 dBm typ	36.5
STABILITY TEST FOR ALL FREQUENCY RANGE WHERE [S21] > 0 dB	0 dB max	<0

FUNCTIONAL BLOCK DIAGRAM



NO EXTERNAL COMPONENT REQUIRED