

ASC2859

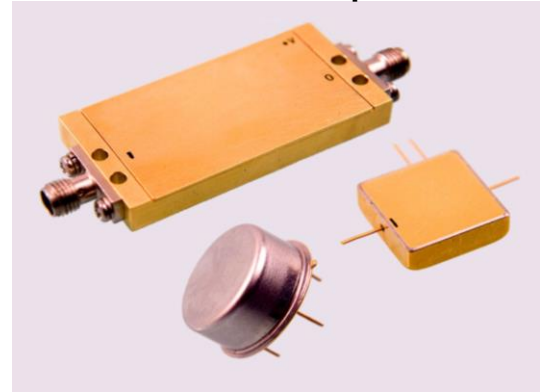
Features: (typical values)

- Output Power 14.0 dBm.
- Noise Figure 1.1 dB.
- High Gain 22.0 dB.
- No external components required

Maximum Ratings

Storage Temperature -62°C to +125°C
 DC Voltage +15 volts
 RF Input Power +20 dBm.
 Case Temperature +125°C

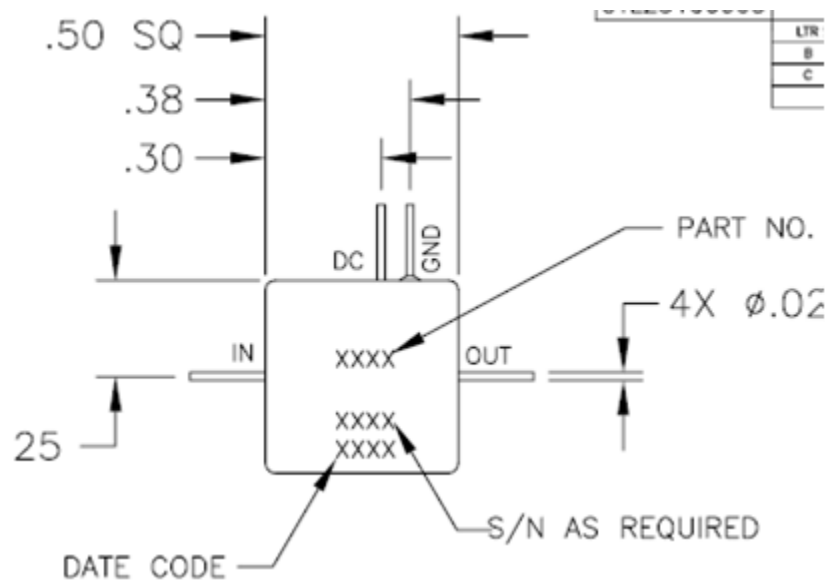
20-500 MHz Cascadable Amplifier



Specifications (Referenced to 50 ohms)

Parameter	Typical Conditions	Min Value	Max Value	Units
Frequency		20	500	MHz.
Gain	22	21		dB.
Gain Flatness	±0.6		±1.0	dB. p-p
Gain Var. over temp	0.6			dB.
Pout @ 1dB Comp	+14.0	+13.5		dBm.
Noise Figure	1.1		4.5	dB.
Reverse Isolation	-29		-28	dB.
IP ₃ /IP ₂ (two-tone)*	28/40			dBm.
VSWR In/Out	1.5:1		2.0:1	
Supply Required	+15/27		+15/30	v/mA.

Min. and max. values are from -55°C to +85°C
 *IP₃ and IP₂ are in band output intercept points

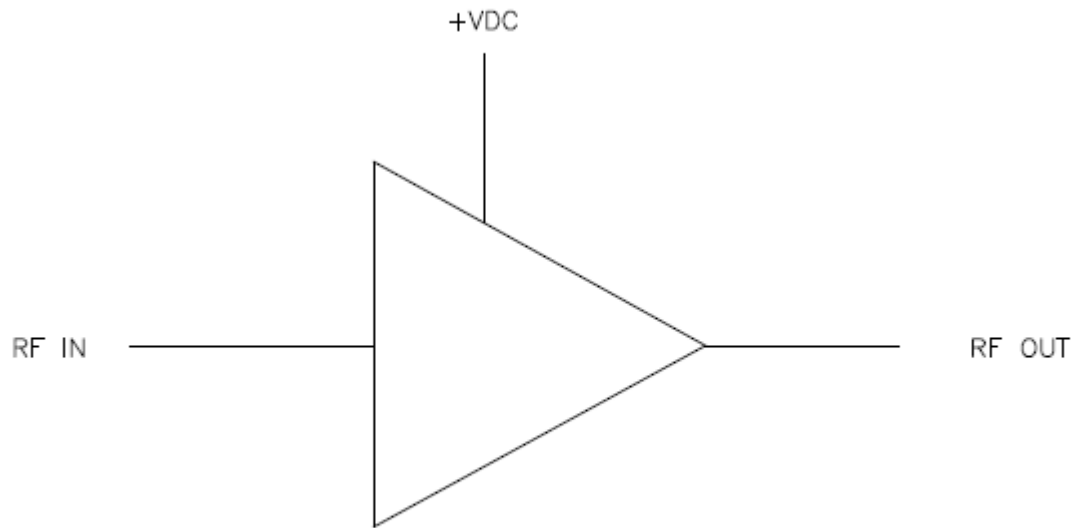


DESCRIPTION: ASC2859

+25°C

TEST	LIMITS / SN	ACTUAL DATA
GAIN 20 MHz TO 500 MHz	21.0 dB min	23.4
		23.6
GAIN FLATNESS 20 MHz TO 500 MHz	±1.0 dB max	±0.1
REVERSE ISOLATION 20 MHz TO 500 MHz	-28 dB Typ	-27
DC CURRENT AT +15 Vdc	30mA max	30
INPUT VSWR 20 MHz TO 500 MHz	2.0 : 1 max	1.31
OUTPUT VSWR 20 MHz TO 500 MHz	2.0 : 1 max	1.37
NOISE FIGURE 20 MHz TO 500 MHz	4.5 dB max	0.85
P1.0 dB COMPRESSION 20 MHz TO 500 MHz	+13.5 dBm min	14.0
IP3 WITH Pout = 0.0 dBm EACH TONE 1) F1=21MHz; F2=22MHz, Fc=20/23MHz 2) F1=498MHz; F2=499MHz, Fc=497/500MHz	28.0 dBm typ	26.0
IP2 WITH Pout = 0.0 dBm EACH TONE 1) F1= 240 MHz; F2=260; Fc=20/500 MHz	40.0 dBm typ	32.0
STABILITY TEST FOR ALL FREQUENCY RANGE WHERE [S21] > 0 dB	0 dB max	<0

FUNCTIONAL BLOCK DIAGRAM



NO EXTERNAL COMPONENT REQUIRED