

ASC2858

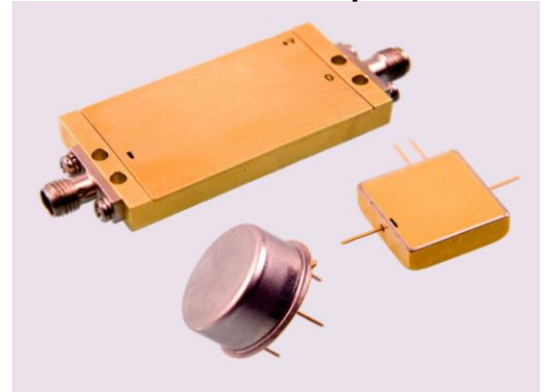
Features: (typical values)

- Output Power 12.0 dBm.
- Noise Figure 1.9 dB.
- High Gain 24.0 dB.
- No external components required

Maximum Ratings

Storage Temperature -62°C to +125°C
 DC Voltage +8 volts
 RF Input Power +13 dBm.
 Case Temperature +125°C

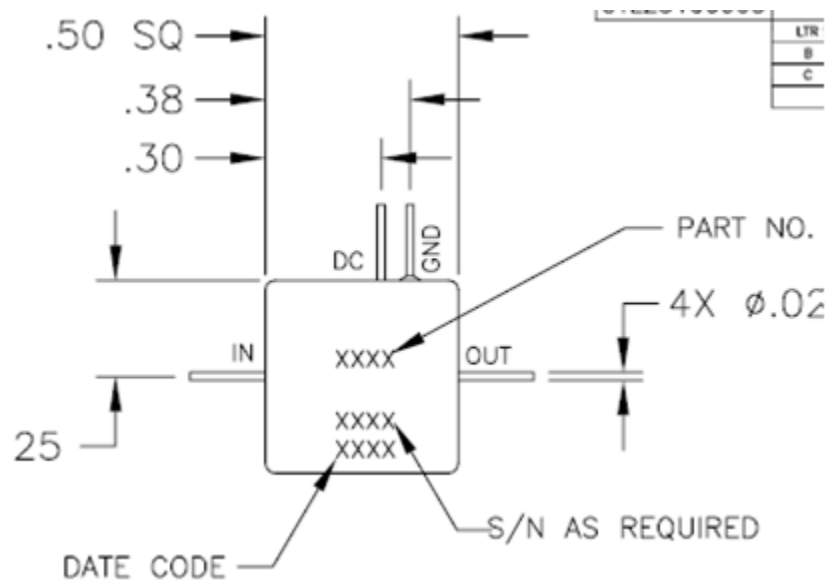
5-150 MHz Cascadable Amplifier



Specifications (Referenced to 50 ohms)

Parameter	Typical Conditions	Min Value	Max Value	Units
Frequency		5	150	MHz.
Gain	24	22.5		dB.
Gain Flatness	±0.6		±1.0	dB. p-p
Gain Var. over temp	0.6			dB.
Pout @ 1dB Comp	+12.0	+10.5		dBm.
Noise Figure	1.9		2.5	dB.
Reverse Isolation	-27		-26	dB.
IP ₃ /IP ₂ (two-tone)*	25/31			dBm.
VSWR In/Out	1.75:1		2.0:1	
Supply Required	+5/20		+5/23	v/mA.

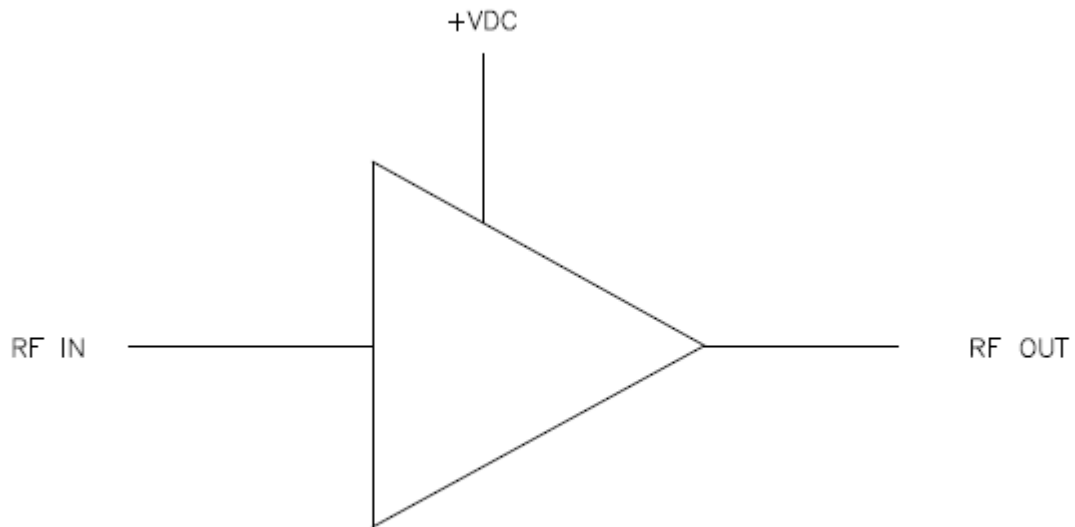
Min. and max. values are from -55°C to +85°C
 *IP₃ and IP₂ are in band output intercept points



DESCRIPTION: ASC2858
+25°C

TEST	LIMITS / SN	ACTUAL DATA
GAIN 5 MHz TO 150 MHz	22.5 dB min	22.9
		23.5
GAIN FLATNESS 5 MHz TO 150 MHz	±1.0 dB max	±0.3
REVERSE ISOLATION 5 MHz TO 150 MHz	-26 dB max	-28.3
DC CURRENT AT +5 Vdc	23mA max	23
INPUT VSWR 5 MHz TO 150 MHz	2.0 : 1 max	1.75
OUTPUT VSWR 5 MHz TO 150 MHz	2.0 : 1 max	1.37
NOISE FIGURE 5 MHz TO 150 MHz	2.5 dB max	1.37
P1.0 dB COMPRESSION 5 MHz TO 150 MHz	+10.5 dBm min	11.0
IP3 WITH Pout = -8.0 dBm EACH TONE 1) F1=11MHz; F2=12MHz, Fc=10/13MHz 2) F1=148MHz; F2=149MHz, Fc=147/150MHz	25.0 dBm typ	23.0
IP2 WITH Pout = -8.0 dBm EACH TONE 1) F1= 70 MHz; F2=80; Fc=10/150 MHz	31.0 dBm typ	29.5
STABILITY TEST FOR ALL FREQUENCY RANGE WHERE [S21] > 0 dB	0 dB max	<0

FUNCTIONAL BLOCK DIAGRAM



NO EXTERNAL COMPONENT REQUIRED