

# ASC2857

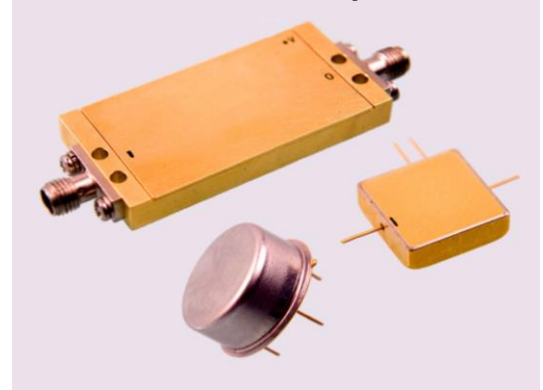
### Features: (typical values)

- Output Power ..... 21.5 dBm.
- Noise Figure ..... 2.5 dB.
- High Gain ..... 23.5 dB.
- No external components required

### Maximum Ratings

Storage Temperature ..... -62°C to +125°C  
 DC Voltage ..... +17 volts  
 RF Input Power ..... +20 dBm.  
 Case Temperature ..... +125°C

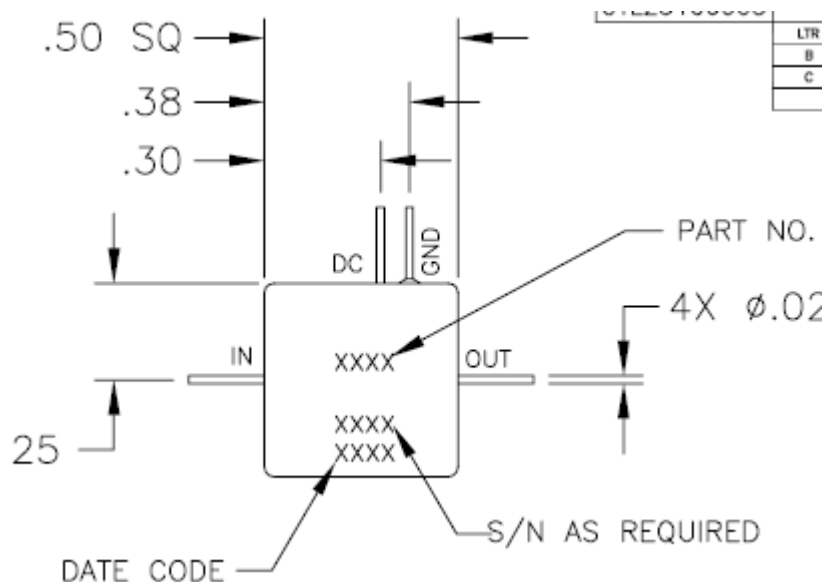
### 100-600 MHz Cascadable Amplifier



Specifications (Referenced to 50 ohms)

Parameter	Typical Conditions	Min Value	Max Value	Units
Frequency		100	600	MHz.
Gain	23.5	22		dB.
Gain Flatness	±0.6		±1.0	dB. p-p
Gain Var. over temp	0.6			dB.
Pout @ 1dB Comp	+21.5	+20.0		dBm.
Noise Figure	2.5		4.0	dB.
Reverse Isolation	-35		-33	dB.
IP <sub>3</sub> /IP <sub>2</sub> (two-tone)*	36/52			dBm.
VSWR In/Out	1.5:1		2.0:1	
Supply Required	+15/95		+15/100	v/mA.

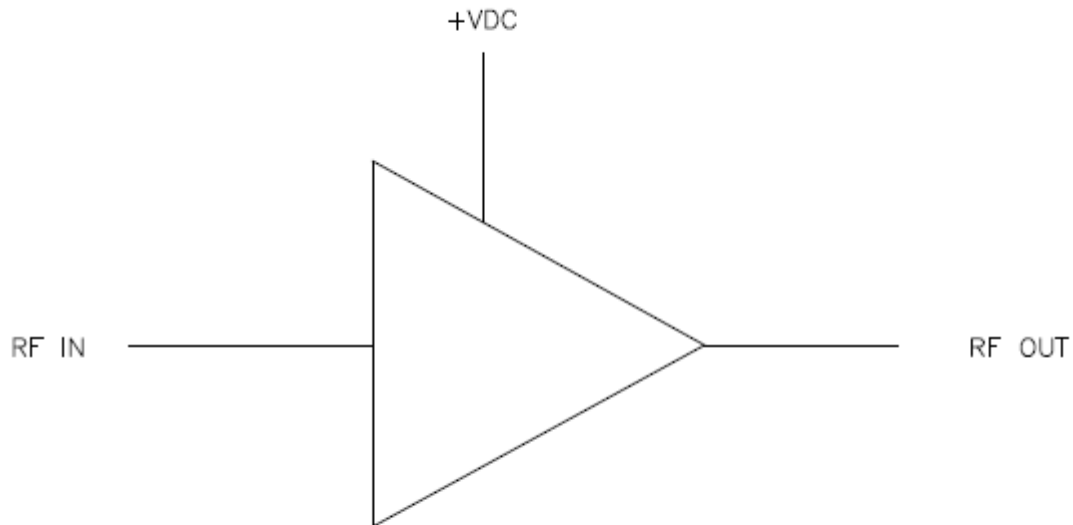
Min. and max. values are from -55°C to +85°C  
 \*IP<sub>3</sub> and IP<sub>2</sub> are in band output intercept points



**DESCRIPTION: ASC2857**  
+25°C

TEST	LIMITS / SN	ACTUAL DATA
GAIN 100 MHz to 600 MHz	22.0 dB min	24.0
	23.5 dB Typ	24.5
GAIN FLATNESS 100 MHz to 600 MHz	±1.0 dB max	±0.25
Spurious Response	Accept/Reject	AC
REVERSE ISOLATION 100 MHz to 600 MHz	-33 dB max	-45
DC CURRENT AT +15 Vdc	100mA max	92
INPUT VSWR 100 MHz to 600 MHz	2.0 : 1 max	1.53
OUTPUT VSWR 100 MHz to 600 MHz	2.0 : 1 max	1.67
NOISE FIGURE 100 MHz to 600 MHz	4.0 dB max	3.5
P1.0 dB COMPRESSION 100 MHz to 600 MHz	20.0 dBm min	20.7
IP3 WITH Pout = +5.0 dBm EACH TONE 1) F1=101MHz; F2=102MHz, Fc=100/103MHz 2) F1=598MHz; F2=599MHz, Fc=597/600MHz	36.0 dBm typ	31.5
IP2 WITH Pout = +5.0 dBm EACH TONE 1) F1= 246 + 354 MHz; Fc= 600 MHz	52.0 dBm typ	48.5
STABILITY TEST FOR ALL FREQUENCY RANGE WHERE [S21] > 0 dB	0 dB max	<0

FUNCTIONAL BLOCK DIAGRAM



NO EXTERNAL COMPONENT REQUIRED