

# ASC2863

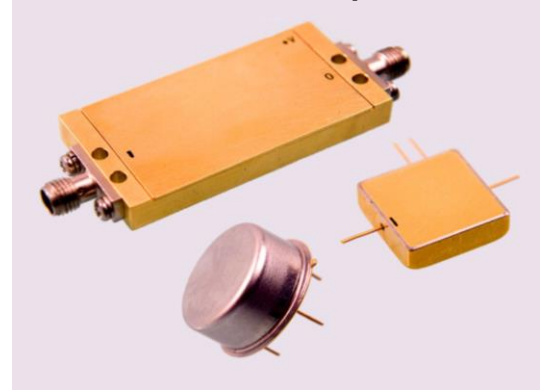
## Features: (typical values)

- Output Power ..... 27.0 dBm.
- Noise Figure ..... 4.0 dB.
- High Gain ..... 13.0 dB.
- No external components required

## Maximum Ratings

Storage Temperature ..... -62°C to +125°C  
 DC Voltage ..... +17 volts  
 RF Input Power ..... +18 dBm.  
 Case Temperature ..... +125°C

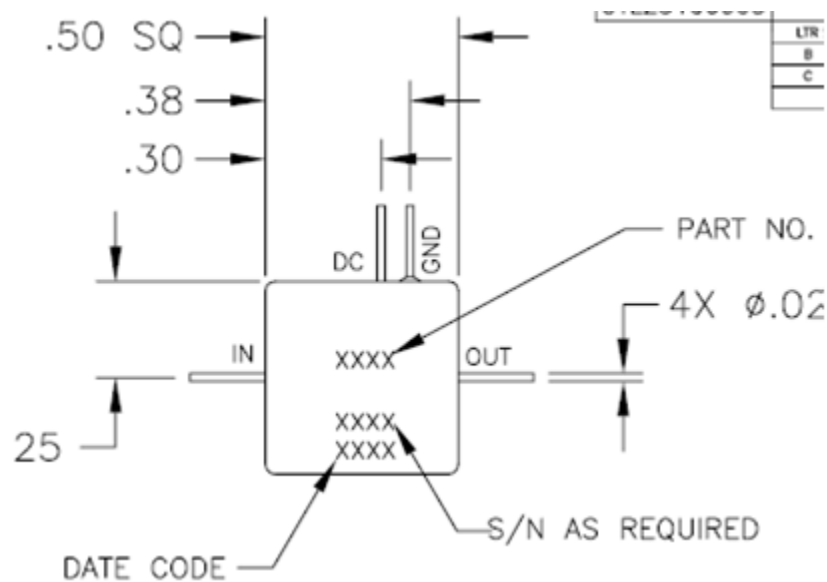
## 10-1000 MHz Cascadable Amplifier



Specifications (Referenced to 50 ohms)

Parameter	Typical Conditions	Min Value	Max Value	Units
Frequency		10	1000	MHz.
Gain	13	12		dB.
Gain Flatness	±0.6		±1.0	dB. p-p
Gain Var. over temp	0.6			dB.
Pout @ 1dB Comp	+27.0	+26.0		dBm.
Noise Figure	4.0		8.0	dB.
Reverse Isolation	-18		-17	dB.
IP <sub>3</sub> /IP <sub>2</sub> (two-tone)*	40/48			dBm.
VSWR In/Out	1.75:1		2.0:1	
Supply Required	+15/185		+15/195	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: ASC2863**  
+25°C

TEST	LIMITS / SN	ACTUAL DATA
GAIN 10 MHz to 1000 MHz	12.0 dB min	13.1
	13.0 dB Typ	13.5
GAIN FLATNESS 10 MHz to 1000 MHz	±1.0 dB max	±0.2
Spurious Response	Accept/Reject	AC
REVERSE ISOLATION 10 MHz to 1000 MHz	-17 dB max	-21.2
DC CURRENT AT +15 Vdc	195mA max	193
INPUT VSWR 10 MHz to 1000 MHz	2.0 : 1 max	1.71
OUTPUT VSWR 10 MHz to 1000 MHz	2.0 : 1 max	1.54
NOISE FIGURE 10 MHz to 1000 MHz	8.0 dB max	4.52
P1.0 dB COMPRESSION 10 MHz to 1000 MHz	26.0 dBm min	26.8
IP3 WITH Pout = +12.0 dBm EACH TONE 1) F1=20 MHz; F2=21MHz, Fc=19/22 MHz 2) F1=998MHz; F2=999MHz, Fc=997/1000MHz	40.0 dBm typ	41.0
IP2 WITH Pout = +12.0 dBm EACH TONE 1) F1/F2= 480/500 MHz; Fc= 20/980 MHz	48.0 dBm typ	52.0
STABILITY TEST FOR ALL FREQUENCY RANGE WHERE [S21] > 0 dB	0 dB max	<0

FUNCTIONAL BLOCK DIAGRAM

