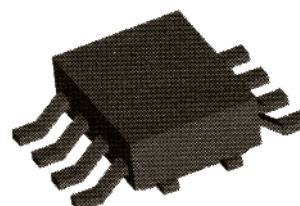


ASMA203 26dBm, 50 Ohm Amplifier 1-300MHz

Introduction

The ASMA203 is a 50 Ohm hybrid amplifier module designed for broadband operation as a class A amplifier driver in applications from 1 to 300MHz. Its wide dynamic range, flexibility and low cost make it ideal for a broad spectrum of instrumentation, receiver, and transmitter applications. The ASMA203 is packaged in a high dissipation, ceramic SO08 style package for surface mount assembly.



Ceramic SOIC8

Figure 1. Available Packages

Features

- Gold Metalized Die
- Broad band Operation 1-300MHz
- 12.5V-13.5V Operating Voltage
- >13dB Gain @ 300MHz

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Stresses in excess of the absolute maximum ratings can cause permanent damage to the device. These are absolute stress ratings only. Functional operation of the device is not implied at these or any other conditions in excess of those given in the operational sections of the data sheet. Exposure to absolute maximum ratings for extended periods can adversely affect device reliability.

Maximum Ratings

$T_C = 25^\circ\text{C}$

SYMBOL	RATING	UNITS
I_D	325	mA
P_{IN}	+27	dBm
T_J	+175	$^\circ\text{C}$
T_{SOLDER}	+260 $^\circ\text{C}$ for 30 Seconds	$^\circ\text{C}$
T_{STG}	-65 to +150	$^\circ\text{C}$

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Electrical Specifications

$I_D = 250 \text{ mA}$

SYMBOL	CHARACTERISTICS	$T_C = 25^\circ\text{C}$ TYPICAL	$T_C = 0 \text{ to } 50^\circ\text{C}$		UNITS
			MINIMUM	MAXIMUM	
BW	Frequency Range	---	1	300	MHz
G_P	Small Signal Power Gain	13.0	12.0		dB
ΔG_P	Gain Flatness	± 0.2		± 0.5	dB
NF	Noise Figure (100 MHz)	6.0			dB
P_{1dB}	Power Output at 1 dB Compression	+27	+26.0		dBm
VSWR	Input/ Output	2.0:1		2.5:1	---
		2.2:1		2.5:1	
REV ISO.	Reverse Isolation	19	---	---	dB
I_{P2}	Two Tone 2 nd Order Intercept Point	+53	---	---	dBm
I_{P3}	Two Tone 3 rd Order Intercept Point	+41	---	---	dBm
H_{P2}	Single Tone 2 nd Harmonic Intercept Point	+59	---	---	dBm
V_D	Device Voltage	12.5	11.5	13.5	V

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OUTLINE DRAWING

