The Analog Mixed Signal Company

Amplifier ID: 013

Name **AMP-08**

Description

This op-amp is designed for on chip signal processing. It is compensated for stable operation at unity gain frequency. The results are simulated with extracted parasitics.

Conditions

Temperature	27°C
Reference Current (Iref)	20 µA
V_{DD}	2.5 V
V_{SS}	-2.5 V
Load	10 kOhms || 10 pF

Simulated Data

Parameter	Symbol	Unit	Min	Typ	Max	Condition
Supply Voltage	V_{DD}	V		5		
Reference Current	I_{ref}	µA		20		
Supply Current	I_{DD}	µA			893	Unity Gain
Input Offset Voltage	V_{IO}	mV	1.08			Unity Gain, No Parasitics, delta L=0.1µm
TK V_{IO}	TK(V_{IO})	µV/K	10.44			Unity Gain, No Parasitics, delta L=0.1µm
Voltage Gain	v	dB	86.3			
Transit Frequency	f_T	MHz	2.31			
Phasemargin	$\hat{I}_m$	deg	72			
0.01% Settling Time		ns	905			Amplitude = 0.5 V
Slew Rate	S	V/µs	1.18			Amplitude = 0.5 V
Maximum Large Signal Frequency		kHz	100			Amplitude = +/- 2V
Output Swing	V_{OUT}	V	-2.4		2.2	< 10 ppm
			-2.3		1.7	< 5 ppm
Static Nonlinearity		ppm			5	V_{DD} = +5 V, Unity Gain
Commonmode Range	V_{CM}	V	-2.5			CMRR > 168dB
			2.5			CMRR > 54dB
Commonmode Rejection Ratio	CMRR	dB	166			f_{CM}= 10 Hz, V_{CM} =0V
Power Supply Rejection Ratio	PSRR	dB	169			f_{PS}= 1 Hz