AMERICAN MICROSYSTEMS, INC

OP000IS01

June, 1998 Preliminary

AMI 1.5 micron CMOS
ABF Double Poly

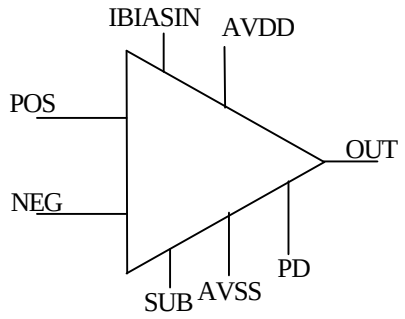
Op amp 1

Features:

Designed to be used in a switched-cap filter . Will drive moderate cap loads and large resistive loads. Moderate current consumption.

Description

Two-stage class A amplifies. P-diff pair. Diff pair and N-minor are composed of wide devices in order to accommodate a large CMR that approaches the negative rail.
The schematic was drawn for the ABF P-well process (hence the sub is conceited to AVDD) but could easily be altered for other N-well processes



PIN DESCRIPTION

NAME	TYPE	DESCRIPTION
AVDD	Analog Supply	Positive Supply
AVSS	Analog Supply	Negative Supply
PD	Power Down Digital	Active High
SUB	Bulk Connection	Tied to Positive Supply
IBIASIN	Input Analog	21 uA Input Bias Current
POS	Input Analog	Positive Opamp Input
NEG	Input Analog	Negative Opamp Input
OUT	Output Analog	Opamp Output

AC ELECTRICAL CHARACTERISTICS

SYMBOL	PARAMETER	MIN	MAX	UNITS
Open Loop Gain		78	83	db
Gbw		877	1.58	MHz
Phase Margin		72	80	
Offset (Systematic)		5.4	121	uV
idd		414	497	uA
cmrr (dc)		100		db
cmr		2.5		V
avdd		4.75	5.25	V
avss		-4.75	-5.25	V
Bias current		21		uA
Output Range		AVSS	AVDD	1V
CLOAD			35	pF
RLOAD		50		K
TEMP	Temperature	0	70	

June, 1998 Preliminary

AMI 1.5 micron CMOS
ABF Double Poly