AMERICAN MICROSYSTEMS, INC

IBCNX3

June, 1998 Preliminary

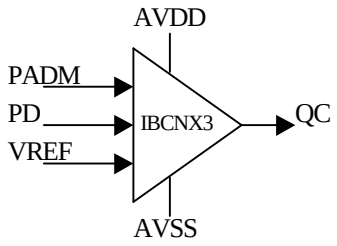
AMI 0.6 micron CMOS
Single Poly

Comparator

Description

N-Channel differential input comparator cell. Digital model is designed for a single ended input.

Schematic Symbol



TRUTH TABLE

PD	PADM	VREF	QC
1	X	X	0
0	0	X	0
0	1	X	1

PIN DESCRIPTION

NAME	TYPE	DESCRIPTION
PADM	Analog input	Positive Comparator Input
VREF	Analog input	Negative Comparator Input
PD	Digital input	Power Down Input
QC	Digital output	Comparator Output
AVDD	Analog supply	VDD
AVSS	Analog supply	VSS

AC ELECTRICAL CHARACTERISTICS

SYMBOL	PARAMETER	CONDITION	MIN	TYP	MAX	UNITS
delay	Propagation delay	1.95pf load		11.0		ns
T	Temperature		-40	25	85	°C
Vdd	Supply Voltage		4.5		5.5	V
Ivdd	Supply Current		3.5	6.4	11.1	mA
GBW	Gain Bandwidth		522	996	1842	MHz
Gain	DC Gain		109	116	116	dB
Vos	Input Offset		-43.0	-16.4	-8.1	mV
CMR	Input Common Mode Range		1.25	2.5	4.25	V
Voh	Output high		VDD			V
Vol	Output low				VSS	V

Cload	Capacitive load		0.046	1.17	2.34	pf