

## General Description

The PVRR XC06 analogue IP cell is a Rail-to-Rail operational amplifier designed to be used as general purpose signal processing element in an ASIC. It's Rail-to-Rail common mode capability enables the application as Ground referenced current-to-voltage converter.

The amplifier is unity gain stable and hence can be used in switched capacitor circuits (for example sample and hold elements, filters ...). The cell is not designed to drive of chip loads. If this is needed, an additional output stage has to be added.

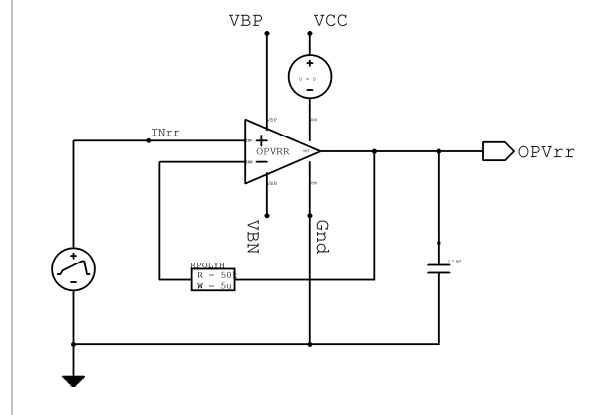
## Ratings, Parameters and Conditions

Parameter / Condition	Symbol	Min	Typ.	Max	Unit	Comment
<b>Electrical Parameters:</b>						
Supply Voltage	$V_{dd}$	4.75	5	5.25	V	
Active Supply Current	$I_{dd}$		20	30	nA	
Open Loop DC Gain	$G_{DC}$	60	65	80	dB	
Phase Margin	PM		82		°	
Gain Bandwidth	GBW		1.2		MHz	
Common Mode Range	$V_{CM}$	0		$V_{dd}$		
<b>Absolute Maximum Ratings:</b>						
Operating Temperature	$T_{range}$	-40		140	°C	
Supply Voltage	$V_{dd}$	-0.3		6	V	
Input Voltage	$V_{in}$	-0.3		$V_{dd}+0.7$		
Output Voltage	$V_{out}$	-0.3		$V_{dd}+0.7$		
<b>Operating Conditions:</b>						
Ambient Temperature	$T_{amb}$	-20	27	80	°C	

## IO-Description

Interface	I/O	Function	Comment
VSS	input	Supply	
VDD	Input	Supply	
VBN	Input	Bias	
VBP	Input	Bias	
INP	Input	Amplifier Positive Input	
INN	Input	Amplifier Negative Input	
OUT	Output	Amplifier Output	

## Block schematic, ext. component diagram



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