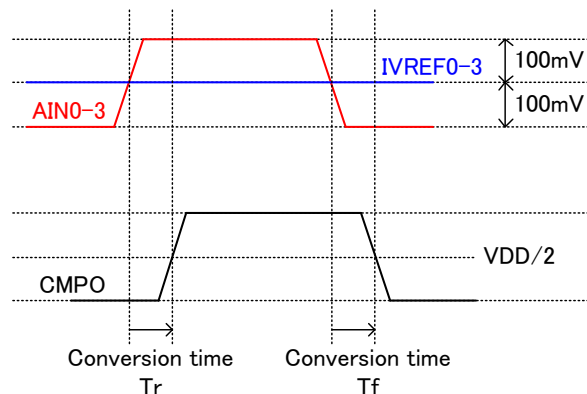
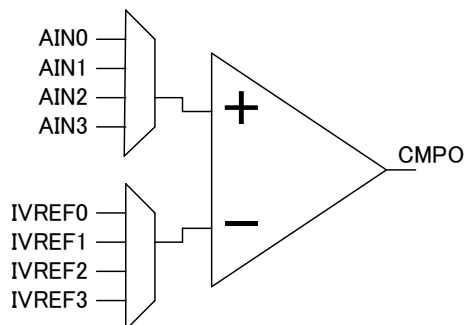


Comparator Datasheet

High Speed Comparator

Overview

This Comparator is high speed, wide supply voltage range operation on T40ULP ESF3. Conversion time is 100ns at worst condition. The IP contains 3 cells of Comparator, Bias and Control. Bias can be connected upto 6 Comparators. The Comparator has input switches for both analog(plus) input and reference(minus) input.



Key Features

General

- Comparator 1ch
- Supported Input channel switching function (4ch) during comparator operation
- Transfer gate switches of input selector are T-type for noise tolerance and current injection
- Output load =< 1 [pF]

Electrical characteristics

Item	Unit	Spec			Remark	
		MIN	TYP	MAX		
Power Supply AVCC	V	1.62	-	3.63		
Power Supply VDD	V	0.81	-	1.21		
Temperature	°C	-40	25	125		
EM lifetime	-	10 years of continuous at 110°C				
Input range: AIN0-3	V	0	-	AVCC		
Input range: IVREF0-3	V	0	-	AVCC		
Power consumption	uA	-	110	160	ENB+BIAS+COMPx1ch	
Sleep current	uA	-	0.1	5	ENB+BIAS+COMPx1ch	
Conversion time	Tr	ns	-	50	100	
	Tf	ns	-	50	100	
Area	COMP	mm ²	-	-	0.008	COMPx1ch
	BIAS	mm ²	-	-	0.0038	
	ENB	mm ²	-	-	0.0065	

**This IP is contract design IP. Please contact for detail.*