

AN6913, AN6913L

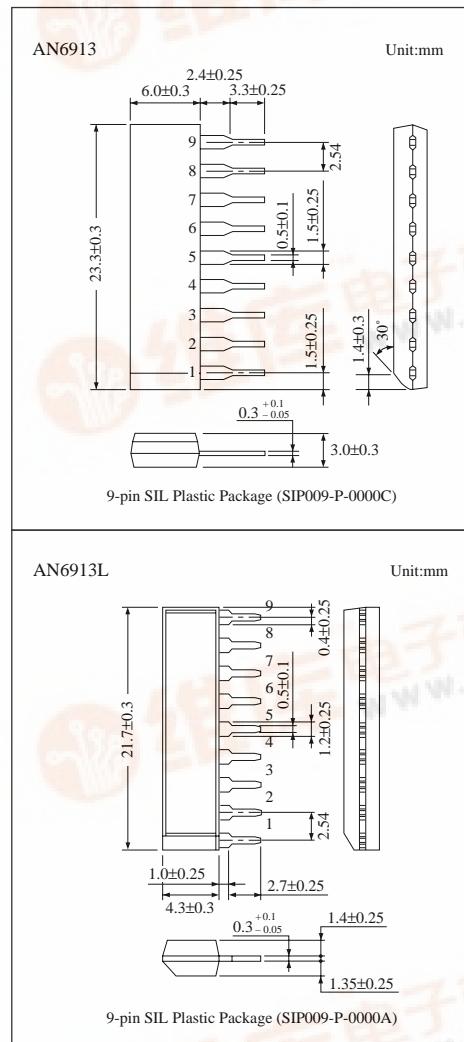
Dual Comparators

■ Overview

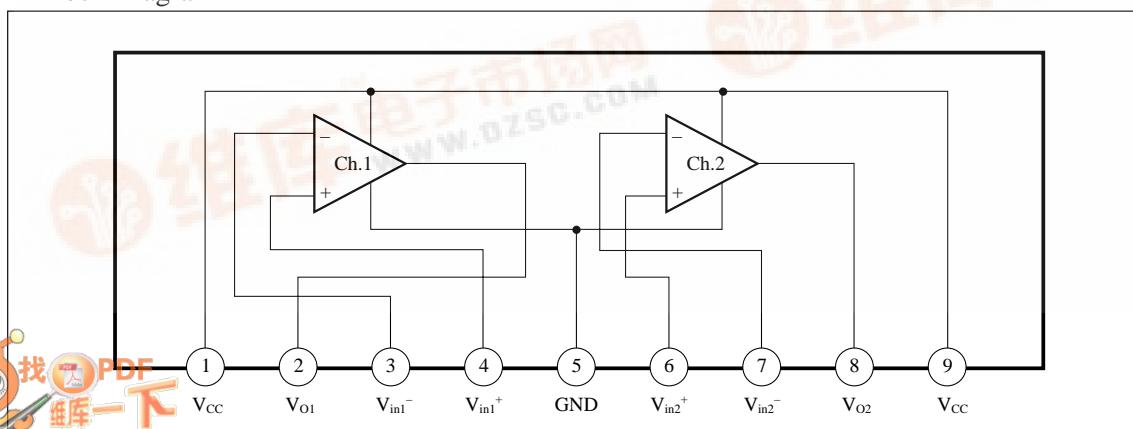
The AN6913 and AN6913L are dual (2-channel) comparators with a wide range of operating supply voltage.

■ Features

- Wide range of operating supply voltage
Single power supply: 2 to 36V
Dual power supply: ± 1 to $\pm 18V$
- Low circuit current: 0.6mA typ.
- Wide range of common-mode input voltage
: 0V to V_{CC}–1.5V (single power supply)
- Open collector output



■ Block Diagram



■ Pin Descriptions

Pin No.	Pin name
1	Supply voltage
2	Ch.1 output
3	Ch.1 inverting input
4	Ch.1 non-inverting input
5	GND
6	Ch.2 non-inverting input
7	Ch.2 inverting input
8	Ch.2 output
9	Supply voltage

■ Absolute Maximum Rating (Ta=25°C)

Parameter	Symbol	Rating	Unit
Voltage	V _{CC}	36	V
	V _{ICM} *1	-0.3 to +36	V
	V _{ID} *2	36	V
	V ₁ , V ₇	24	V
Power dissipation	P _D	500	mW
Operating ambient temperature	T _{opr}	-30 to +85	°C
Storage temperature	T _{stg}	-55 to +150	°C

*1 The common-mode input voltage is applied to the non-inverting input pin and inverting input pin simultaneously.

*2 Differential input corresponds to the potential difference between the non-inverting input pin and inverting input pin.

■ Recommended Operating (Ta=25°C)

Parameter	Symbol	Range
Operating supply voltage range	V _{CC}	Single power supply 2V to 36V
		Dual power supply ±1V to ±18V

■ Electrical Characteristics (V_{CC}=5V, Ta=25°C)

Parameter	Symbol	Condition	min	typ	max	Unit
Input offset voltage	V _I (offset)		—	1	5	mV
Input offset current	I _{IO}		—	—	50	nA
Input bias current	I _{Bias}		—	—	250	nA
Voltage gain	G _V	R _L =15kΩ	—	200	—	V/mV
Common-mode input voltage width	V _{CM}		0	—	V _{CC} -1.5	V
Supply current	I _{CC}	R _L =∞	—	0.6	1.5	mA
Response time	t _r	R _L =5.1kΩ, V _{RL} =5V	—	1.3	—	μs
Output sink current	I _{SINK}	V _{REF} =0V, V _{IN} =1V, V _O ≤1.5V	10	—	—	mA
Output voltage low level	V _{OL}	V _{REF} =0V, V _{IN} =1V, I _{SINK} =3mA	—	0.2	0.4	V
Output pin leak current	I _O (Leak)	V _{IN} =0V, V _{REF} =1V, V _O =5V	—	0.1	—	nA

■ Characteristics Curve

