Electrical characteristics at specified free-air temperature, Vcc =5V (unless otherwise noted)

PARAMETER	TEST CONDITIONS*			LM393			UNIT
				MIN	TYP	MAX	
V_{IO} Input offset voltage	Vcc=5V to 30V V_{IC}=VICR min, Vo=1.4V		25℃		2	5	mV
			Full range			9	
I_{IO} Input offset current	Vo=1.4V		25℃		5	50	nA
			Full range				
I_{IB} Input bias current	Vo=1.4V		25 ℃		-25	-250	nA
			Full range			-400	
V_{ICR} Common-mode input voltage range**			25℃	0 to Vcc-1.5			V
			Full range	0 to Vcc-2			
A_{VD} Large-signal differential voltage amplification	Vcc=15V, Vo=1.4V to 11.4V, RL≥15KΩ to Vcc		25℃	50	200		V/mV
I_{OH} High-level output voltage	V_{OH}=5V, V_{ID}=1V		25℃		0.1	50	nA
	V_{OH}=30V, V_{ID}=1V		Full range			1	μA
V_{OL} Low-level output voltage	I_{OL}=4Ma, V_{ID}=-1V		25℃		150	400	mA
			Full range			700	
IOL Low-level output current	V_{oL}=1.5V, V_{ID}=-1V		25℃	6			mA
Icc Supply current (four amplifiers)	R_L=∞	Vcc=5V	25℃		08	1	mA
		Vcc=30V	Full range			2.5	

*Full range (MIN to MAX), for the LM393 is 0℃ to 70℃. All characteristics are measured with zero common-mode input voltage unless otherwise specified.

**the voltage at ether input or common-mode should not ge allowed to go negative by more than 0.3V. the upper end of the common-mode voltage range is Vcc-1.5V, but either or both imputs can go to 30V without damage.

Switching characteristics, Vcc=5V, T_A=25℃

PARAMETER	TEST CONDITIONS		MIN	TYP	MAX	UNIT
Response time	RL connected to 5V through 5.1kΩ CL=15pF* (See Note 1)	100-mV input step with 5-mV overdive		1.3		μs
		TTL-level input step		0.3		

CL includes probe and jig capacitance .

NOTE 1: The response time specified is the interval between the input step function and the instant when the output crosses 1.4V.