



Electrical characteristics at specified free-air temperature, $V_{CC} = 5V$
(unless otherwise noted)

PARAMETER	TEST CONDITIONS*		LM358			UNIT
			MIN	TYP	MAX	
V_{IO} Input offset voltage	$V_{CC}=5V$ to MAX, $V_{IC}=V_{ICR}$ min, $V_O=1.4V$	25°C		3	7	mV
		Full range			9	
αV_{IO} Average temperature coefficient of input offset current		Full range		7		$\mu V/^\circ C$
I_{IO} Input offset current	$V_O=1.4V$	25°C		2	50	nA
		Full range			150	
I_{IO} Average temperature coefficient of input offset current		Full range		10		$pA/^\circ C$
I_{IB} Input bias current	$V_O=1.4V$	25 °C		-20	-250	nA
		Full range			-500	
V_{ICR} Common-mode input voltage range	$V_{CC}=5V$ to MAX	25°C	0 to $V_{CC}-1.5$			V
		Full range	0 to $V_{CC}-2$			
V_{OH} High-level output voltage	$R_L \geq 2k\Omega$	25°C	$V_{CC}-1.5$			V
	$V_{CC}=MAX$, $R_L \geq 2k\Omega$	Full range	26			
	$V_{CC}=MAX$, $R_L \geq 10k\Omega$	Full range	27	28		
V_{OL} Low-level output voltage	$R_L \geq 10k\Omega$	Full range		5	20	mV
A_{VD} Large-signal differential voltage amplification	$V_{CC}=15V$, $V_O=1V$ to 11V $R_L \geq 2K\Omega$	25 °C	25	100		V/mV
		Full range	15			
CMRR Common-Mode rejection ratio	$V_{CC}=15V$ to MAX $V_{IC}=V_{ICR}$ min	25°C	65	80		dB
K_{SVR} Supply voltage rejection ratio ($\Delta V_{CC}/\Delta V_{IO}$)	$V_{CC}=5V$ to MAX	25°C	65	100		dB
V_{O1}/V_{O2} Crosstalk attenuation	$f=1kHz$ to 20kHz	25°C		120		dB
I_O Output current	$V_{CC}=15V$, $V_{ID}=1V$, $V_O=0$	25°C	-20	-30		mA
		Full range	-10			
	$V_{CC}=15V$, $V_{ID}=-1V$, $V_O=0$	25°C	10	20		
		Full range	5			
I_{OS} Short-circuit out put current	V_{CC} at 5V, GND at -5V, $V_O=0$	25°C		± 40	± 60	mA
I_{CC} Supply current (four amplifiers)	$V_O=2.5V$, No load	Full range		0.7	1.2	mA
	$V_{CC}=MAX$, $V_O=0.5V_{CC}$, No load	Full range		1	2	

*All characteristics are measured under open loop conditions with zero common-mode input voltage unless otherwise specified. 'MAX' V_{CC} for testing purposes is 30 V. full range is 0 °C to 70°C