

Specifications

Maximum Ratings at $T_a = 25^\circ\text{C}$

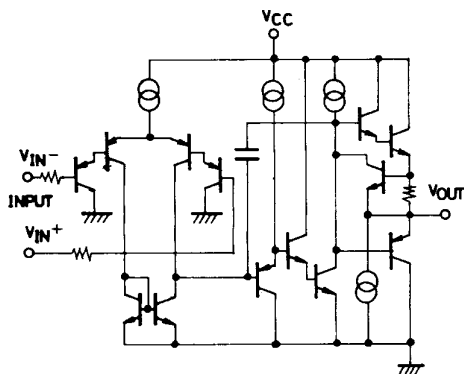
Parameter	Symbol	Conditions	Ratings	Unit
Maximum supply voltage	V_{CC} max		32	V
Differential input voltage	V_{ID}		32	V
Maximum input voltage	V_{IN} max		-0.3 to +32	V
Allowable power dissipation	Pd max	LA6324N	720	mW
		LA6324NM	330	mW
Operating temperature	T_{opr}		-30 to +85	$^\circ\text{C}$
Storage temperature	T_{stg}		-55 to +125	$^\circ\text{C}$

Operating Characteristics at $T_a = 25^\circ\text{C}$, $V_{CC} = +5\text{ V}$

Parameter	Symbol	Conditions	Test circuit	min	typ	max	Unit
Input offset voltage	V_{IO}		1		± 2	± 7	mV
Input offset current	I_{IO}	$I_{IN(+)} / I_{IN(-)}$	2		± 5	± 50	nA
Input bias current	I_B	$I_{IN(+)} / I_{IN(-)}$	3		45	250	nA
Common-mode input voltage range	V_{ICM}		4	0		$V_{CC} - 1.5$	V
Common-mode rejection ratio	CMR		4	65	80		dB
Voltage gain	VG	$V_{CC} = 15\text{ V}$, $R_L \geq 2\text{ k}\Omega$	5	25	100		V/mV
Output voltage range	V_{OUT}			0		$V_{CC} - 1.5$	V
Supply voltage rejection ratio	SVR		6	65	100		dB
Channel separation	CS	$f = 1\text{ k}$ to 20 kHz	7		120		dB
Current drain	I_{CC}		8		0.6	2	mA
	I_{CC}	$V_{CC} = 30\text{ V}$	8		1.5	3	mA
Output current (Source)	I_O source	$V_{IN+} = 1\text{ V}$, $V_{IN-} = 0\text{ V}$	9	20	40		mA
Output current (Sink)	I_O sink	$V_{IN+} = 0\text{ V}$, $V_{IN-} = 1\text{ V}$	10	10	20		mA

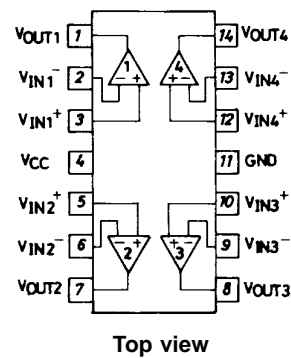
Equivalent Circuit

(1 unit)



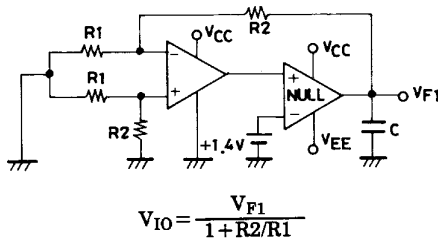
Pin Assignment

(LA6324N, 6324NM)

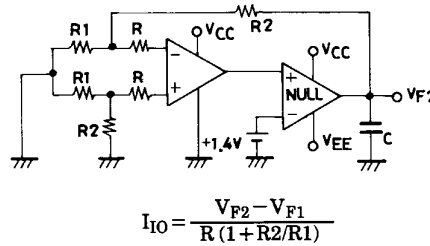


Test Circuit

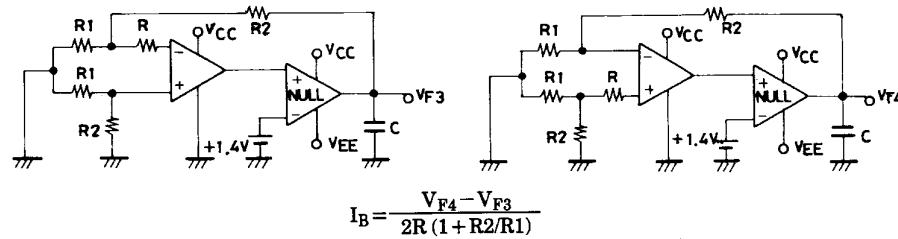
1. Input offset voltage V_{IO}



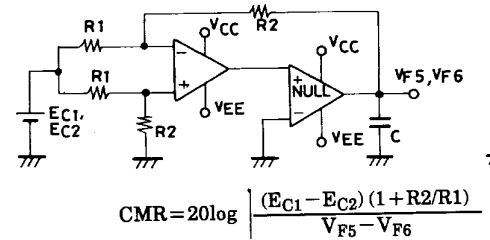
2. Input offset current I_{IO}



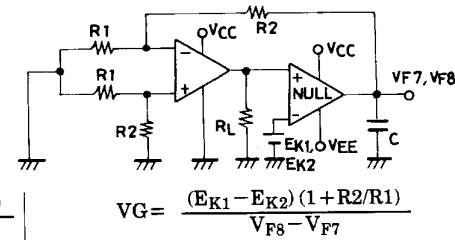
3. Input bias current I_B



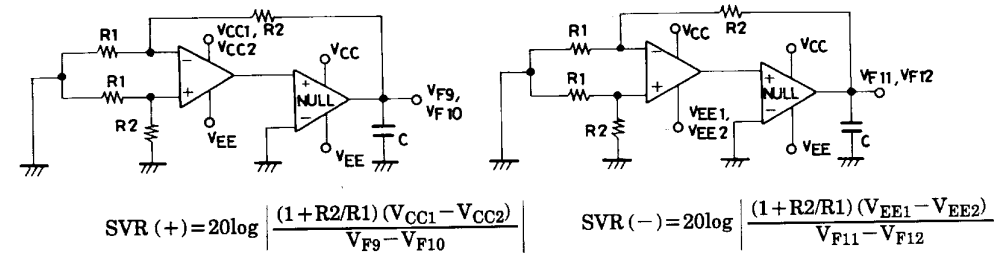
4. Common-mode rejection ratio CMR
Common-mode input voltage range V_{ICM}



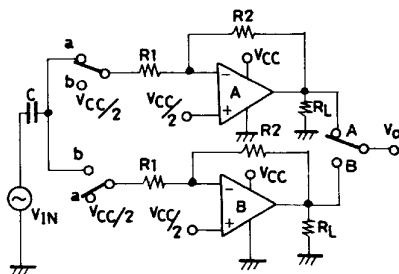
5. Voltage gain V_G



6. Supply voltage rejection ratio SVR



7. Channel separation CS



SW: a

$$CS (A \rightarrow B) = 20 \log \frac{R2 V_{OA}}{R1 V_{OB}}$$

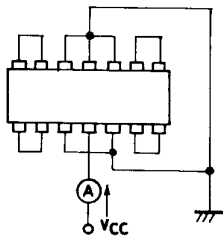
SW: b

$$CS (B \rightarrow A) = 20 \log \frac{R2 V_{OB}}{R1 V_{OA}}$$

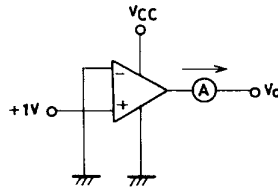
These apply also to other channels.

LA6324N, 6324NM

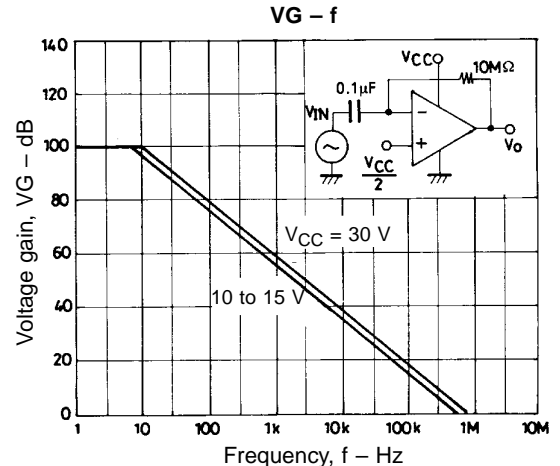
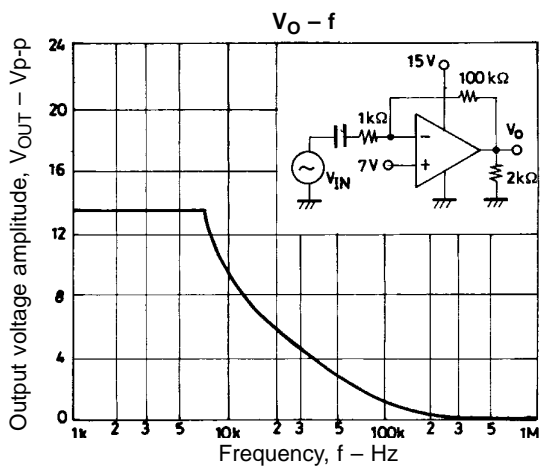
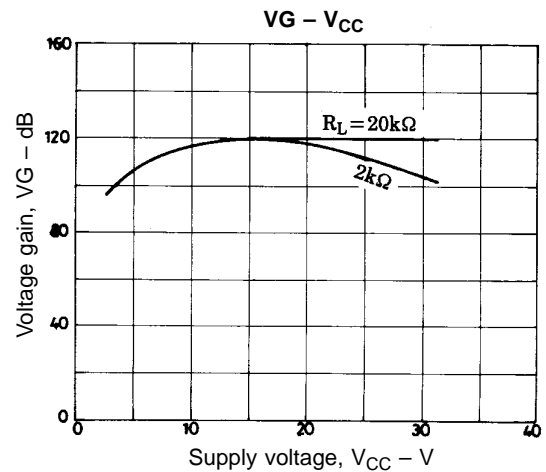
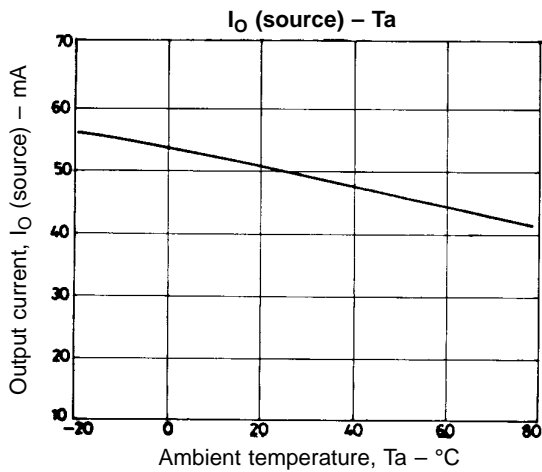
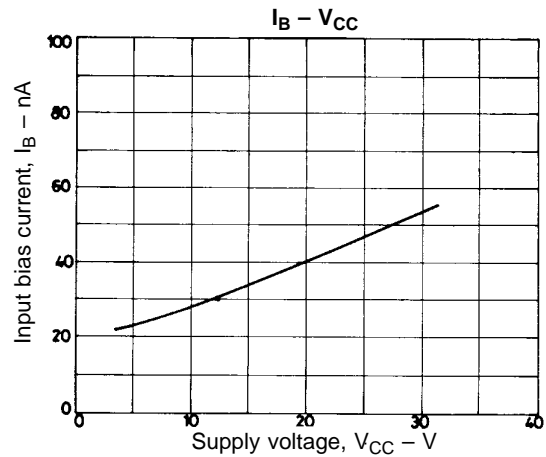
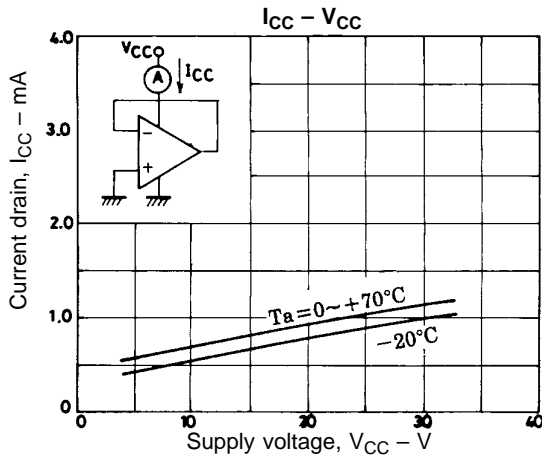
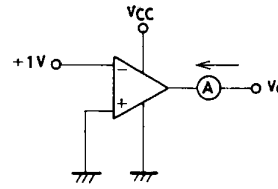
8. Current drain I_{CC}



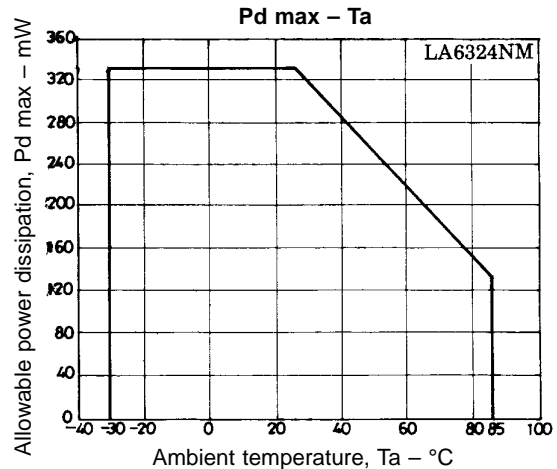
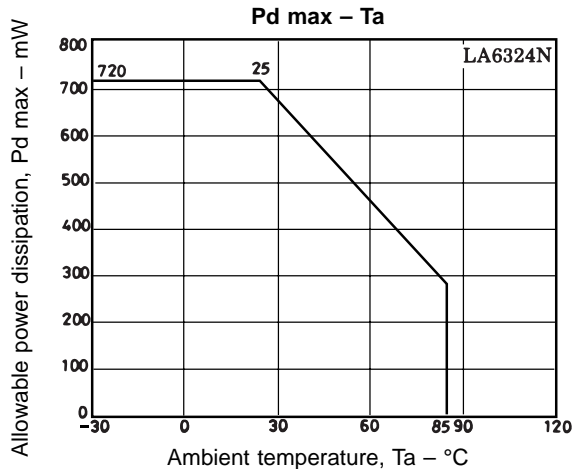
9. Output current I_O source



10. Output current I_O sink

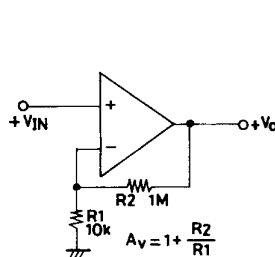


LA6324N, 6324NM

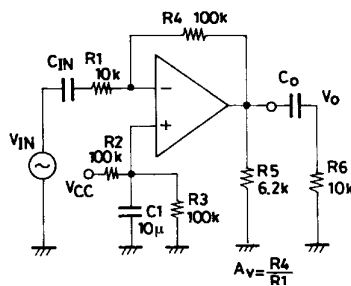


Sample Application Circuits

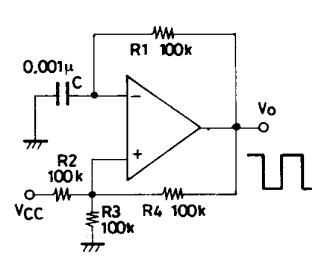
Noninverting DC amplifier



Rectangular wave oscillator



Inverting AC amplifier



Unit (resistance: Ω , capacitance: F)

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