

# DBL 5009B

## ON-HOOK AMPLIFIER

The DBL 5009 is a monolithic integrated circuit designed for speaker amp.

### FEATURES

- Operating supply voltage range :  $V_{CC} = 1.5 \sim 5.0$
- Recommended operating supply voltage :  $V_{CC} = 3V$
- Low quiescent current :  $I_{CCO} : 2.6mA$
- Package is compact.

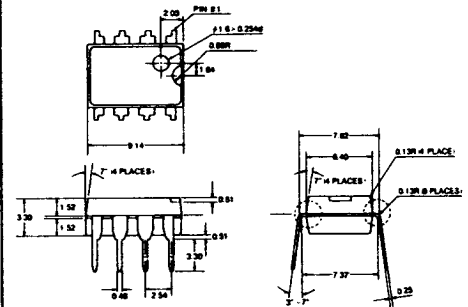
### APPLICATION

- Telephone set

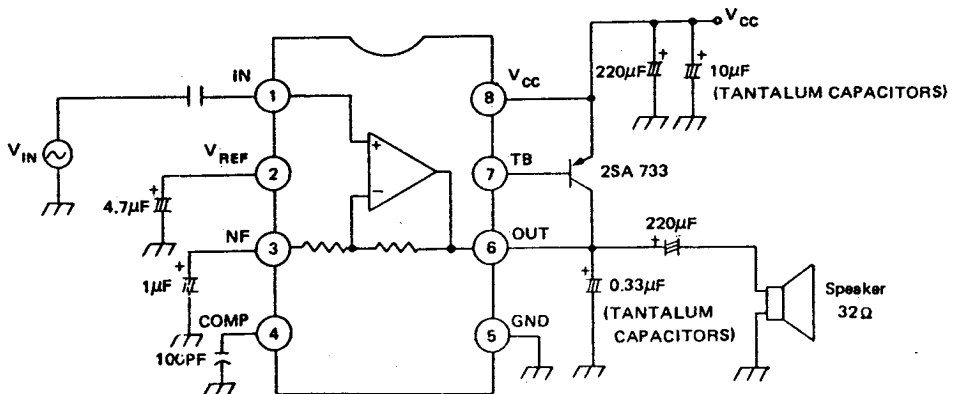
### MAXIMUM RATINGS

8DIP

Unit: mm



Characteristics	Symbol	Rating	Unit
Supply Voltage	$V_{CC}$	10	V
Power Dissipation	$P_D$	800	mW
Operating Temperature	$T_{opr}$	$-12 \sim +60$	$^{\circ}C$
Storage Temperature	$T_{stg}$	$-55 \sim +150$	$^{\circ}C$



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## ELECTRICAL DC CHARACTERISTICS

(Pin voltage at  $V_{CC}=3V$  and no input signal)

Pin No.	Symbol	Typical Value	Unit	Pin No.	Symbol	Typical Value	Unit
1	$V_1$	1.4	V	5	$V_5$	0	V
2	$V_2$	1.4	V	6	$V_6$	1.5	V
3	$V_3$	1.4	V	7	$V_7$	2.3	V
4	$V_4$	1.3	V	8	$V_8$	3.0	V

## ELECTRICAL AC CHARACTERISTICS

(Unless otherwise specified,  $V_{CC}=3V$ ,  $f=1KHz$ ,  $V_{IN}=20mVrms$ ,  $R_L=32\Omega$ ,  $T_a=25^\circ C$ )

Characteristic	Symbol	Test condition	Min.	Typ.	Max.	Unit
Quiescent Current	$I_{CCQ1}$	$V_{CC}=2.0V$		2.0		mA
	$I_{CCQ2}$	$V_{CC}=3.0V$		2.6		mA
	$I_{CCQ3}$	$V_{CC}=5.0V$		3.5		mA
Close Loop Voltage Gain	$G_V$			27		dB
Maximum Output Voltage	$V_{OM}$	THD = 10 %		1.0		$V_{rms}$
Total Harmonic Distortion	THD	$V_{IN}=40mVrms$		0.6		%
Output noise Voltage	$V_{NO}$	$V_{IN}=0$		200		$\mu V_{rms}$
Input Resistance	$R_{IN}$			15		$K\Omega$

## TYPICAL PERFORMANCE CHARACTERISTICS

