

UTC LM386 LINEAR INTEGRATED CIRCUIT

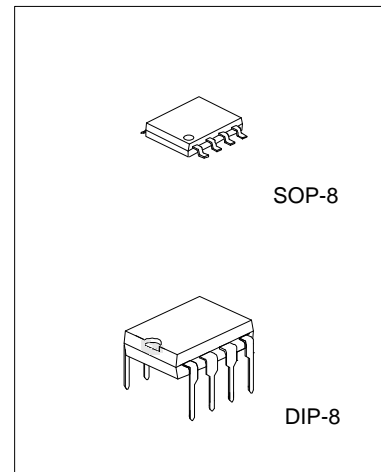
LOW VOLTAGE AUDIO POWER AMPLIFIER

DESCRIPTION

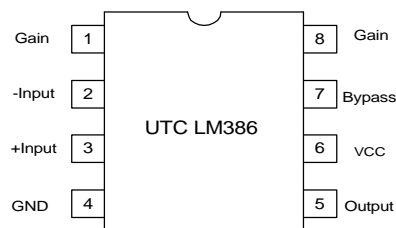
The UTC LM386 is a power amplifier, designed for use in low voltage consumer applications. The gain is internally set to 20 keep the external part count low, but the additional of external resistor and capacitor between pin 1 and pin 8 will increase the gain to any value up to 200.

FEATURES

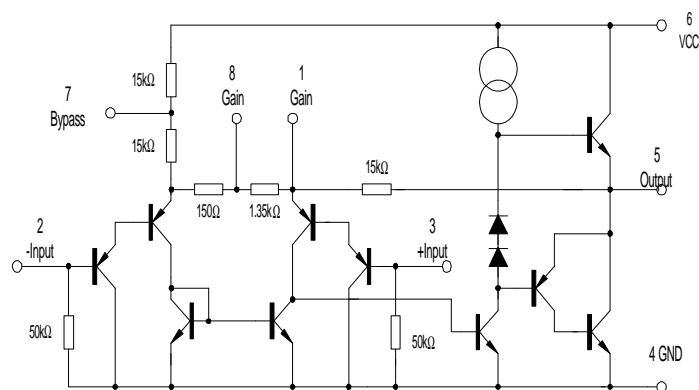
- *Minimum external parts
- *Wide supply voltage range: 4V~12V
- *Voltage gains:20~200
- *Ground referenced input
- *Low distortion



PIN CONFIGURATIONS



BLOCK DIAGRAM



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ABSOLUTE MAXIMUM RATINGS($T_a=25^{\circ}\text{C}$)

PARAMETER	SYMBOL	VALUE	UNIT
Supply Voltage	V_{cc}	15	V
Power Dissipation	P_d	1250 600	mW
	DIP-8 SOP-8		
Input Voltage	V_i	-0.4V~+0.4V	V
Operating Temperature	T_{opr}	0 to 70	$^{\circ}\text{C}$
Storage Temperature	T_{stg}	-40 to 150	$^{\circ}\text{C}$

ELECTRICAL CHARACTERISTICS($T_a=25^{\circ}\text{C}$, all voltage referenced to GND unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Quiescent circuit current	ICCQ	$V_i=0$		4	8	mA
Output Power	P_o	$V_{cc}=6\text{V}, \text{THD}=10\%$	250	325		mW
		$V_{cc}=9\text{V}, \text{THD}=10\%$	500	700		mW
Voltage Gain	GV	Pin1 and pin 8 open		26		dB
		10 μF from pin 1 and pin 8		46		dB
Bandwidth	BW	Pin1 and pin 8 open		300		kHz
		10 μF from pin 1 and pin 8		60		kHz
Total harmonic distortion	THD	$P_o=125\text{mW}$, pin1 and pin 8 open		0.2		%
Input Resistance	R_i			50		k Ω
Input Bias current	IBIAS	Pin1 and pin 8 open		250		nA

APPLICATION CIRCUIT

