



LM386

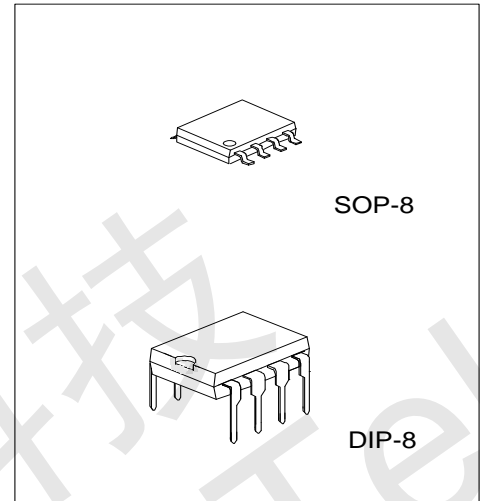
LOW VOLTAGE AUDIO POWER AMPLIFIER

DESCRIPTION

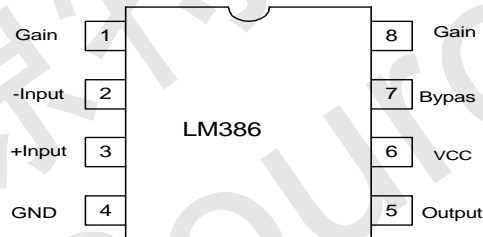
The LM386 is a power amplifier, designed for use in low voltage consumer applications. The gain is internally set to 20 keep the external part count low, but the additional of external resistor and capacitor between pin 1 and pin 8 will increase the gain to any value up to 200.

FEATURES

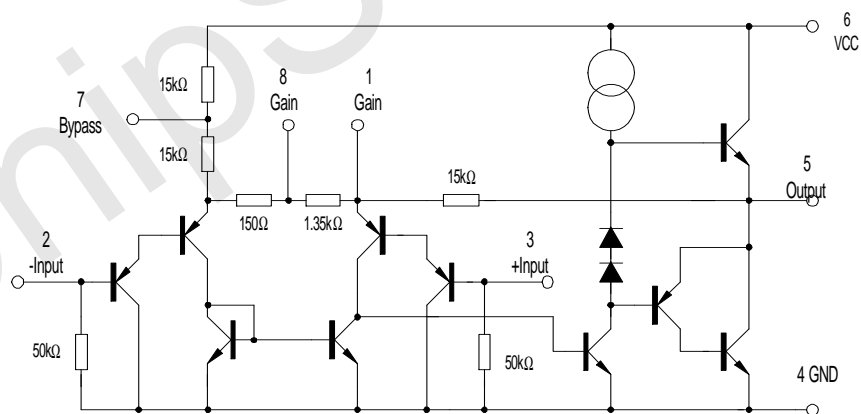
- *Minimum external parts
- *Wide supply voltage range: 4V~12V
- *Voltage gains:20~200
- *Ground referenced input
- *Low distortion



PIN CONFIGURATIONS



BLOCK DIAGRAM





LM386

ABSOLUTE MAXIMUM RATINGS(Ta=25°C)

PARAMETER	SYMBOL	VALUE	UNIT
Supply Voltage	Vcc	15	V
Power Dissipation	Pd	1250 600	mW
Input Voltage	Vi	-0.4V~+0.4V	V
Operating Temperature	Topr	0 to 70	°C
Storage Temperature	Tstg	-40 to 150	°C

ELECTRICAL CHARACTERISTICS(Ta=25°C, all voltage referenced to GND unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Quiescent circuit current	ICCQ	Vi=0		4	8	mA
Output Power	Po	Vcc=6V,THD=10%	250	325		mW
		Vcc=9V,THD=10%	500	700		mW
Voltage Gain	GV	Pin1 and pin 8 open		26		dB
		10µF from pin 1 and pin 8		46		dB
Bandwidth	BW	Pin1 and pin 8 open		300		kHz
		10µF from pin 1 and pin 8		60		kHz
Total harmonic distortion	THD	Po=125mW, pin1 and pin 8 open		0.2		%
Input Resistance	Ri			50		kΩ
Input Bias current	IBIAS	Pin1 and pin 8 open		250		nA

APPLICATION CIRCUIT

