

UTC1316

LINEAR INTEGRATED CIRCUIT

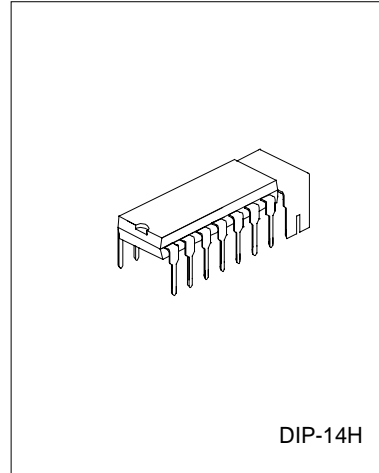
DUAL CHANNEL AUDIO POWER AMPLIFIER

DESCRIPTION

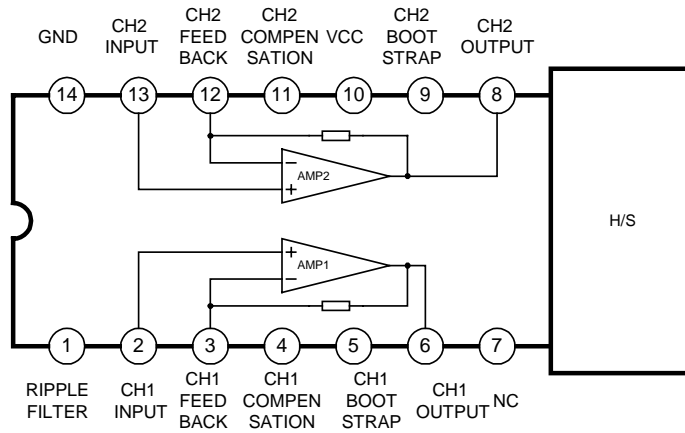
The UTC1316 is a monolithic integrated circuit designed for the audio amplifier part in tap recorders and radio.

FEATURES

- *Wide operating voltage (3V to 16V)
- *Low quiescent current
- *Low Harmonic distortion
- *Large output power(2W,maximum)
- *Fine ripple rejection characteristic



BLOCK DIAGRAM



ABSOLUTE MAXIMUM RATINGS (Ta=25°C)

Characteristic	Symbol	Value	Unit
Supply Voltage(No signal)	Vcc	18	V
Supply Voltage(operating)	Vcc	16	V
Operating Temperature	Topr	-20 to +75	°C
Storage Temperature	Tstg	-40 to 150	°C
Power dissipation	Pd	2.0	W

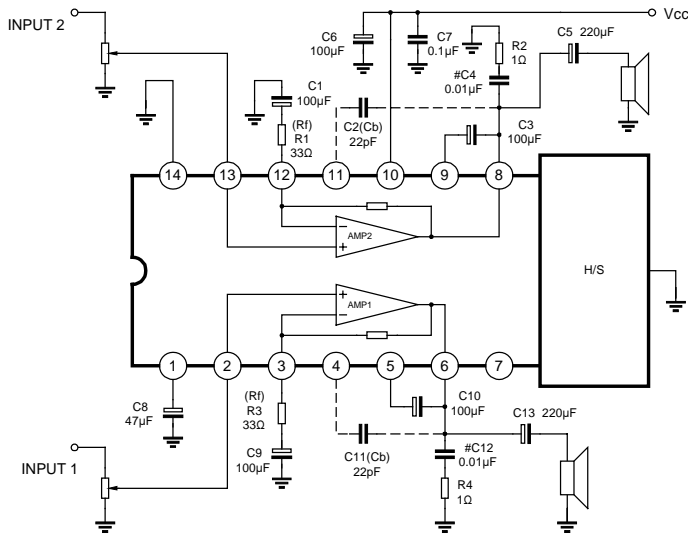


ELECTRICAL CHARACTERISTICS

($T_a=25^{\circ}\text{C}$, $V_{cc}=9\text{V}$, $R_B=33\Omega$, $f=1\text{KHz}$, $R_L=8\Omega$, unless otherwise specified)

Characteristic	Symbol	Test Condition	Min	Typ.	Max	Unit
Quiescent Current	I_{ccQ}	No Signal		10		mA
Voltage Gain	G_v	$P_o=0.25\text{W}$, $R_f=33\Omega$		44		dB
		$P_o=0.25\text{W}$, $R_f=120\Omega$		34		dB
Output Power	P_o	$V_{cc}=12\text{V}$, $R_L=8\Omega$, THD=10%		2		W
		$V_{cc}=9\text{V}$, $R_L=4\Omega$, THD=10%		1.6		
		$V_{cc}=9\text{V}$, $R_L=8\Omega$, THD=10%		1.2		
		$V_{cc}=6\text{V}$, $R_L=4\Omega$, THD=10%		0.7		
		$V_{cc}=6\text{V}$, $R_L=8\Omega$, THD=10%		0.5		
Total Harmonic distortion	THD	$P_o=0.5\text{W}$, $R_f=33\Omega$		0.8		%
		$P_o=0.5\text{W}$, $R_f=120\Omega$		0.4		%
Noise output voltage	V_{no}	$R_g=10\text{k}\Omega$		0.6		mV
Ripple Rejection Ratio	RR	$R_g=0$, $f_{rip}=100\text{Hz}$, $V_{rip}=0.3\text{V}$		50		dB
Channel Separation	CS	$R_g=0$, $P_o=0.25\text{W}$		55		dB
Channel Balance	CB	$P_o=0.25\text{W}$	-2	0	2	dB
Input impedance	R_i			5		$M\Omega$

TYPICAL APPLICATION CIRCUIT



TYPICAL PERFORMANCE CHARACTERISTICS

