

UTC PC1316 LINEAR INTEGRATED CIRCUIT

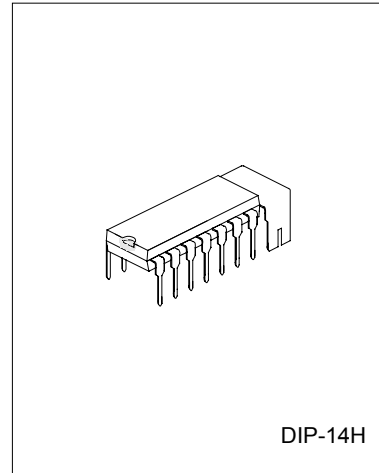
DUAL CHANNEL AUDIO POWER AMPLIFIER

DESCRIPTION

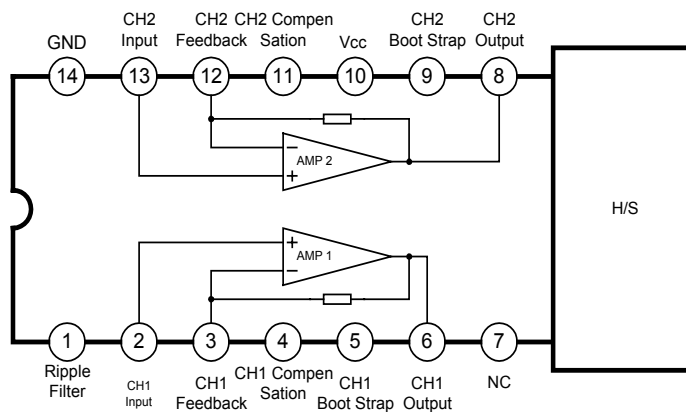
The UTC PC1316 is a monolithic integrated circuit, designed for the audio amplifier part in tape recorders and radio.

FEATURES

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



BLOCK DIAGRAM



ABSOLUTE MAXIMUM RATINGS (Ta=25°C)

PARAMETER	SYMBOL	VALUE	UNIT
Supply Voltage(no signal)	Vcc	18	V
Supply Voltage(operating)	Vcc	16	V
Power Dissipation	PD	2	W
Operating Temperature	TOPR	-20 ~ 75	°C
Storage Temperature	TSTG	-40 ~ 150	°C

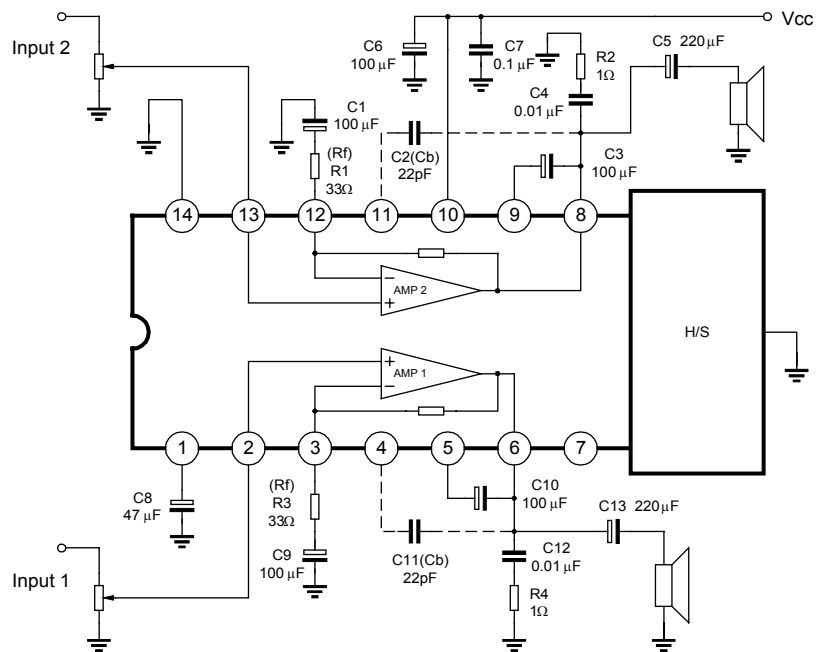
UTCPC1316 LINEAR INTEGRATED CIRCUIT

ELECTRONIC CHARACTERISTICS

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

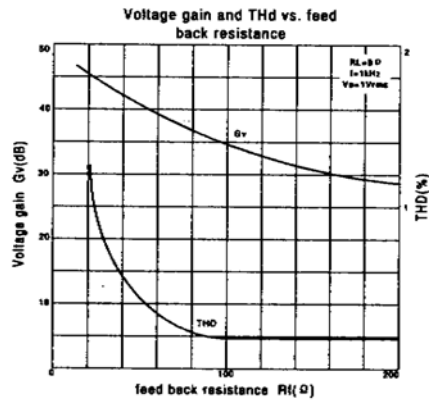
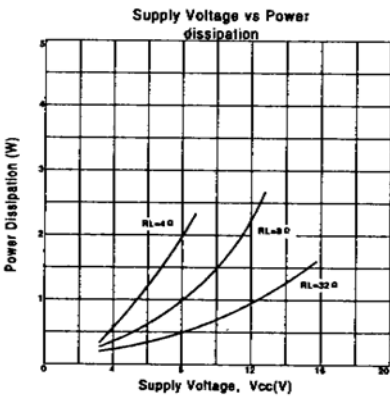
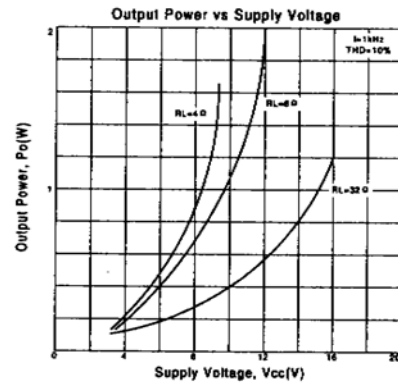
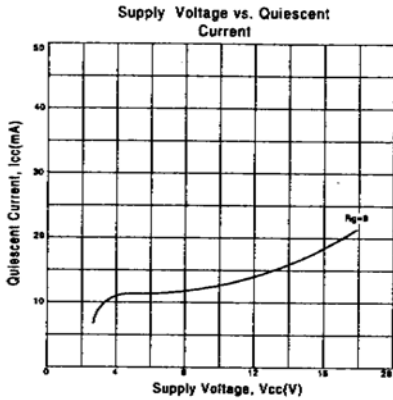
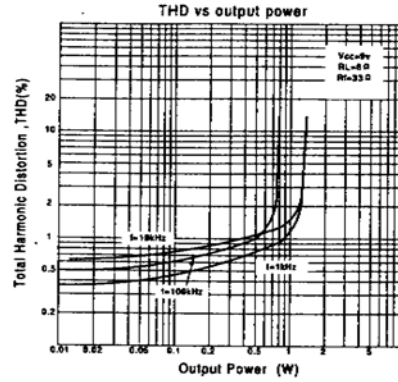
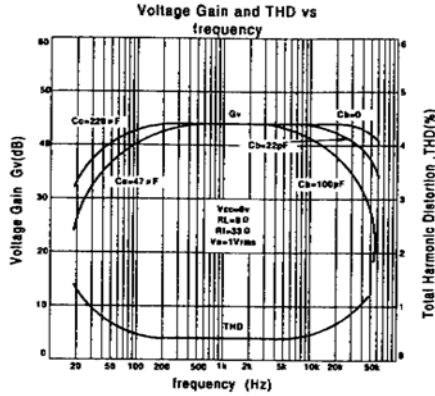
PARAMETER	TEST CONDITIONS	SYMBOL	MIN	TYP	MAX	UNIT
Quiescent Current	No Signal	ICCQ		10		mA
Voltage Gain	$P_o=0.25\text{W}$, $R_f=33\Omega$	G_v		44		dB
	$P_o=0.25\text{W}$, $R_f=120\Omega$	G_v		34		dB
Output Power	$V_{cc}=12\text{V}$, $R_L=8\Omega$, THD=10%	PO		2		W
	$V_{cc}=9\text{V}$, $R_L=4\Omega$, THD=10%	PO		1.6		W
Output Power	$V_{cc}=9\text{V}$, $R_L=8\Omega$, THD=10%	PO		1.2		W
	$V_{cc}=6\text{V}$, $R_L=4\Omega$, THD=10%	PO		0.7		W
	$V_{cc}=6\text{V}$, $R_L=8\Omega$, THD=10%	PO		0.5		W
Total Harmonic Distortion	$P_o=0.5\text{W}$, $R_f=33\Omega$	THD		0.8		%
	$P_o=0.5\text{W}$, $R_f=120\Omega$	THD		0.4		%
Noise Output Voltage	$R_g=10\text{k}\Omega$	VNO		0.6		mV
Ripple Rejection Ratio	$R_g=0$, $f_{rip}=100\text{Hz}$, $V_{rip}=0.3\text{V}$	RR		50		dB
Channel Separation	$R_g=0$, $P_o=0.25\text{W}$	CS		55		dB
Channel Balance	$P_o=0.25\text{W}$	CB	-2	0	2	dB
Input Impedance		RI		5		M Ω

APPLICATION CIRCUIT



UTCPC1316 LINEAR INTEGRATED CIRCUIT

TYPICAL PERFORMANCE CHARACTERISTICS



UTCPC1316 LINEAR INTEGRATED CIRCUIT

UTC assumes no responsibility for equipment failures that result from using products at values that exceed, even momentarily, rated values (such as maximum ratings, operating condition ranges, or other parameters) listed in products specifications of any and all UTC products described or contained herein. UTC products are not designed for use in life support appliances, devices or systems where malfunction of these products can be reasonably expected to result in personal injury. Reproduction in whole or in part is prohibited without the prior written consent of the copyright owner. The information presented in this document does not form part of any quotation or contract, is believed to be accurate and reliable and may be changed without notice.