

# UTC7112

# LINEAR INTEGRATED CIRCUIT

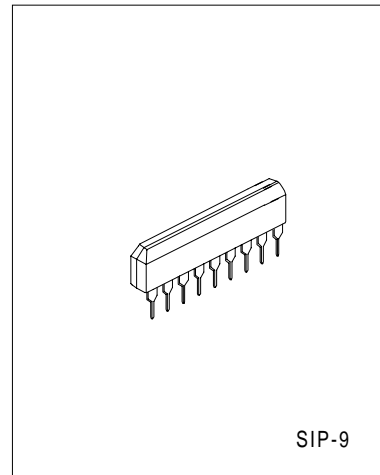
## 0.5W AUDIO POWER AMPLIFIER

### DESCRIPTION

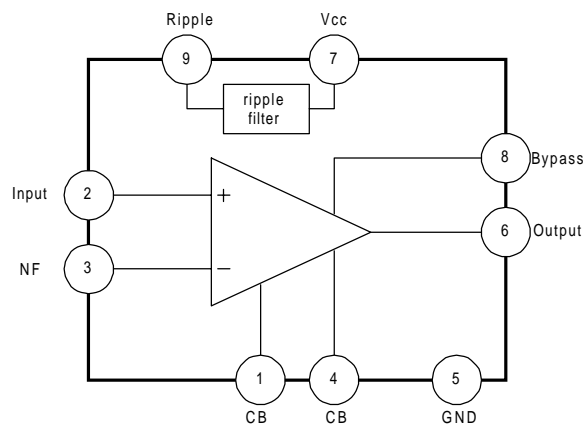
The UTC7112 is a monolithic integrated audio power amplifier in SIP-9 package, designed for audio frequency class B amplifier.

### FEATURES

- \*Suitable for portable radio cassette tape recorders
- \*Medium output power  
 $P_o=0.5W$  at  $V_{cc}=6V, R_L=8\Omega, THD=10\%$
- \*Wide operating supply voltage range.
- \*Low quiescent current
- \*Excellent thermal stability



### BLOCK DIAGRAM



### ABSOLUTE MAXIMUM RATINGS (Ta=25°C)

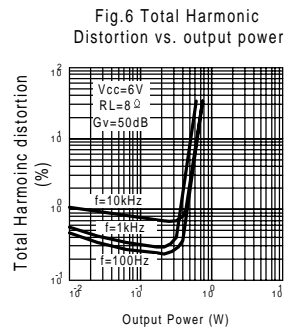
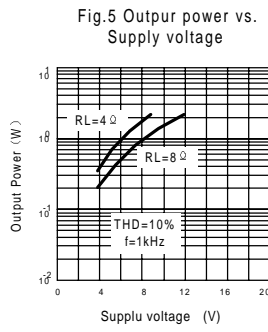
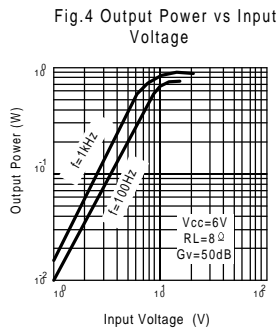
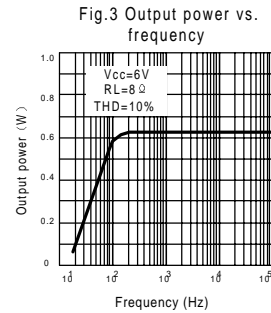
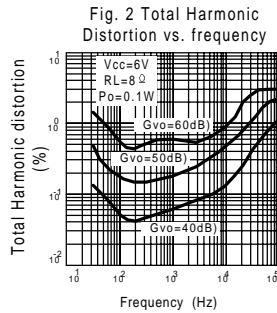
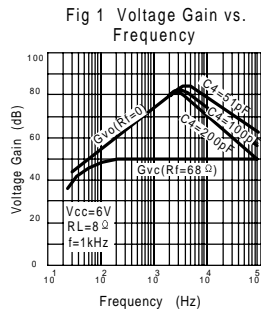
Characteristic	Symbol	Value	Unit
Supply Voltage	Vcc	14	V
Operating Temperature	Topr	-20 to +70	°C
Storage Temperature	Tstg	-45 to 150	°C
Power dissipation	PD	750	W

**ELECTRICAL CHARACTERISTICS**

( $T_a=25^{\circ}\text{C}$ ,  $V_{cc}=6\text{V}$ ,  $R_L=8\Omega$ ,  $R_G=600\Omega$ ,  $R_F=68\Omega$  unless otherwise specified)

Characteristic	Symbol	Test Condition	Min	Typ.	Max	Unit
Quiescent circuit current	$I_{CCQ}$	$V_i=0$		14		mA
Open loop voltage gain	$G_{vo}$	$R_F=0$	60	75		dB
Closed loop Voltage Gain	$G_{vc}$	$R_F=68\Omega$	47	50	52	dB
Output Power	$P_d$	THD=10%	0.45	0.5		W
Total Harmonic Distortion	THD	$P_o=100\text{mW}$		0.3	1.0	%
Input resistanc	$R_i$			15		$k\Omega$
Output Noise voltag	VNO	$R_G=10k\Omega$ $BW(-3\text{dB})=50\text{Hz}\sim 20\text{kHz}$		0.4	1.0	mV

**TYPICAL PERFORMANCE CHARACTERISTICS**



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## TEST CIRCUIT

