

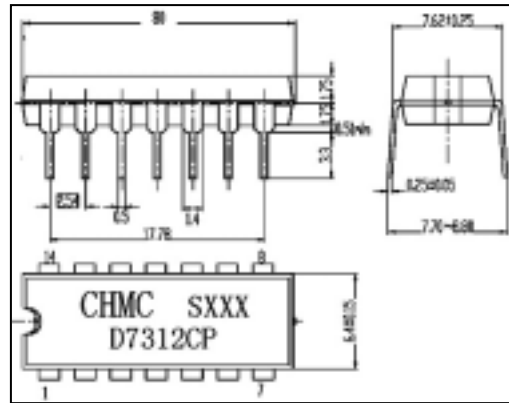


DUAL CHANNEL PRE-AMP. WITH ALC D7312CP

DESCRIPTION

The D7312CP is a monolithic integrated circuit designed for dual pre-amplifier circuit with ALC for record /playback amplifier of cassette tape recorder.

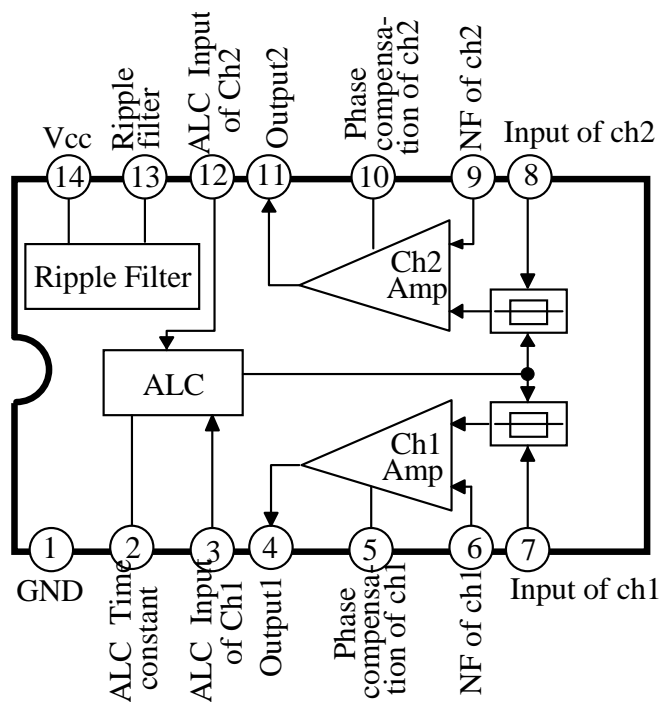
Outline Drawing



FEATURE

- High open loop gain
 - Incorporates ALC detector circuit
 - No input coupling condenser
 - Low noise and current consumption
 - Wide ALC range
 - Wide operating voltage range: $V_{cc}=5V \sim 12V$
- Low Power ON shock noise DIP-14

BLOCK DIAGRAM AND PIN CONNECTION



ABSOLUTE MAXIMUM RATINGS (Ta=25°C)

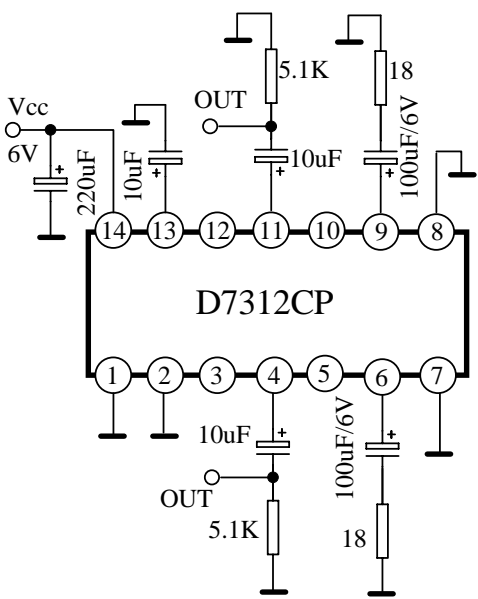
Characteristic	Symbol	Value	Unit
Supply Voltage	V _{CC}	14	V
Supply Current	I _{CC}	50	mA
Power Dissipation	P _D	700	mW
Operating Temperature	T _{opr}	-55~125	°C
Storage Temperature	T _{stg}	-65~150	°C

ELECTRICAL CHARACTERISTICS

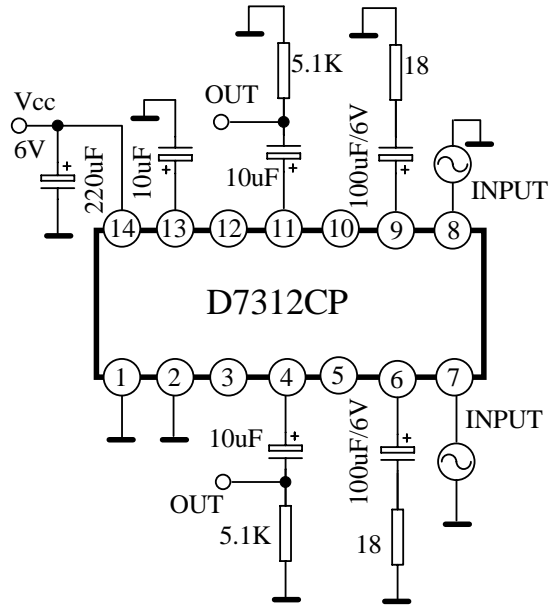
(unless otherwise specified: Ta=25°C, V_{CC}=6V; f=1kHz, R_L=5.1kΩ)

Characteristics	Test conditions	Symbol	Test Circuit	Min.	Typ.	Max.	Unit
Quiescent Current	V _{in} =0V	I _{CQ}	1	2.5	4.5	8.0	mA
Operating Voltage		V _{CC}	1	5.0		12.0	V
Closed-loop Voltage Gain	V _o =0.5V	G _v	2	66	69	72	dB
Total Harmonic Distortion	V _o =0.5V	THD	2		0.5	1.0	%
Output Voltage	THD=1%	V _{omax}	2	1.2	1.6		V
Output noise Voltage	R _g =0Ω	V _{NO}	1		2.0	5.0	mV
ALC Voltage	V _{in} =400μV	V _{ALC}	3	0.55	0.63	0.7	V
ALC Width	Beginning 0dB to 3dB	W _{ALC}	3	35	47		dB
Channel Valance	V _o =0.5V, CB=G _{v1} -G _{v2}	CB	2	-1.0	0	+1.0	dB

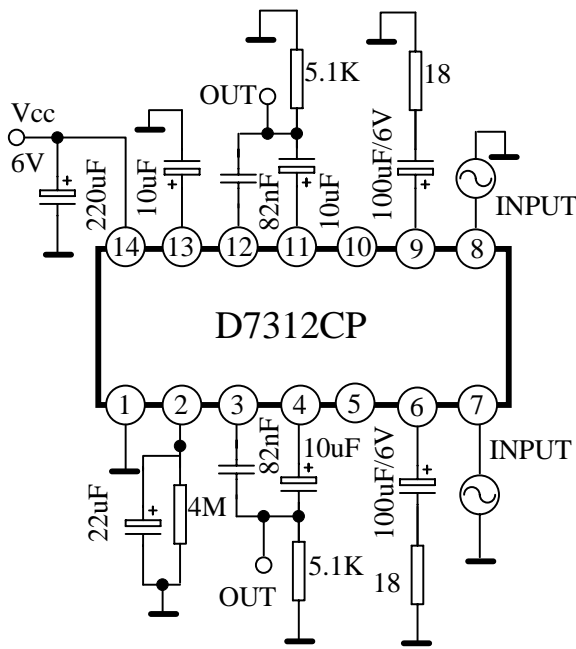
TEST CIRCUIT



Test circuit 1 (I_{CQ} , V_{CC} , V_{NO})

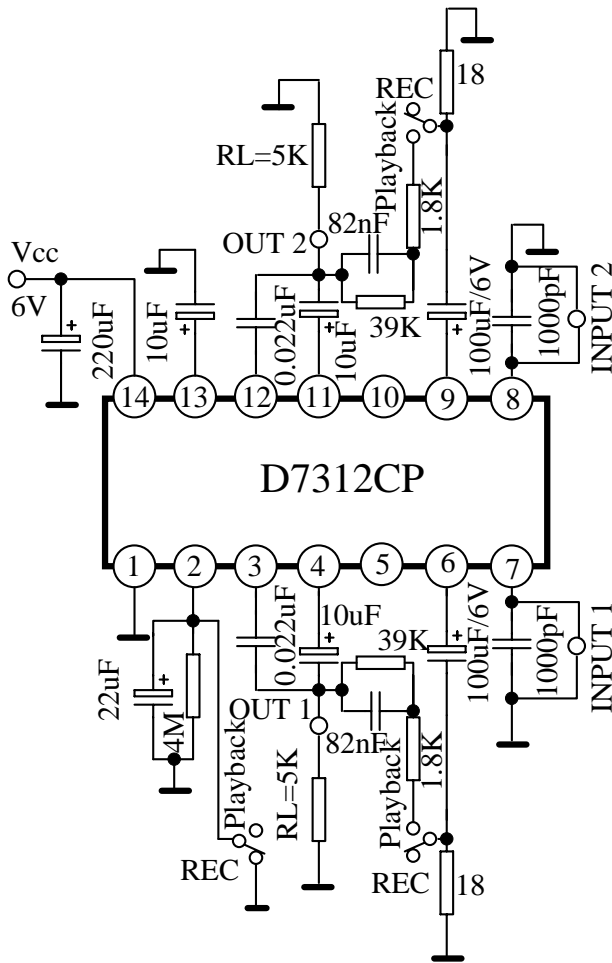


Test circuit 2 (G_v , THD , V_{omax} , CB)



Test circuit 3 (V_{ALC} , W_{ALC})

APPLICATION CIRCUIT



CHARACTERISTIC CURVES

