



SANYO Semiconductors

## DATA SHEET

LA7222

Monolithic Linear IC

For VCR / Audio Use

2-Channel 2-Position AV Switch

## Overview

The LA7222 is a 2-channel 2-position high-performance analog switch having wide application from audio band to video band.

## Specifications

## Maximum Ratings at Ta = 25°C

Parameter	Symbol	Conditions	Ratings	Unit
Maximum supply voltage	V <sub>CC</sub> max		15	V
Allowable power dissipation	Pd max	Ta = 65°C	350	mW
Operating temperature	Topr		-20 to +65	°C
Storage temperature	Tstg		-55 to +125	°C

## Operating Conditions at Ta = 25°C

Parameter	Symbol	Conditions	Ratings	Unit
Recommended supply voltage	V <sub>CC</sub>		12	V
Operating voltage	V <sub>CC</sub> op		8 to 13	V

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# LA7222

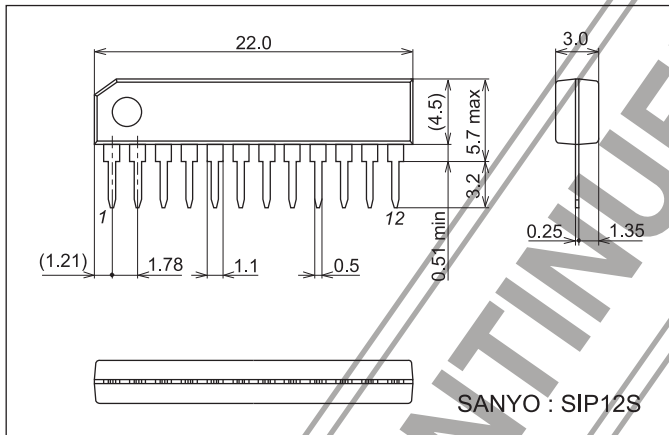
**Electrical Characteristics** at  $T_a = 25^\circ\text{C}$ ,  $V_{CC} = 12\text{V}$

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Current drain	$I_{CC}$	No input	12	17	22	mA
Total harmonic distortion	THD	$R_g = 600\Omega$ , $V_{IN} = 4.5\text{Vp-p}$ , $f = 1\text{kHz}$		0.007	0.1	%
Output noise voltage	$V_{ON}$	$R_g = 600\Omega$ , DIN AUDIO FILTER (20Hz to 20kHz)		-110	-100	dBs
Crosstalk (ch-1)	CR1	$R_g = 50\Omega$ (no input side $R_g = 500\Omega$ ), $V_{IN} = 2\text{Vp-p}$ , $f = 3.58\text{MHz}$	-57	-62		dB
Crosstalk (ch-2)	CR2	$R_g = 50\Omega$ (no input side $R_g = 500\Omega$ ), $V_{IN} = 2\text{Vp-p}$ , $f = 3.58\text{MHz}$	-52	-57		dB
Maximum input voltage	$V_{IN}$	$R_g = 600\Omega$ , $f = 1\text{kHz}$ , THD = 1%	5.0			Vp-p
2nd harmonic	$H_2$	$R_g = 50\Omega$ , $V_{IN} = 4\text{Vp-p}$ , $f = 1\text{MHz}$	-46	-55		dB
3rd harmonic	$H_3$	$R_g = 50\Omega$ , $V_{IN} = 4\text{Vp-p}$ , $f = 1\text{MHz}$	-46	-55		dB
Input impedance	$z_{in}$			10		k $\Omega$
Output impedance	$z_o$			30	60	$\Omega$
Switch A input hold voltage	$V_{CA}$	Pin 2, pin 4 DC	3.8		$V_{CC}$	V
Switch B input hold voltage	$V_{CB}$	Pin 2, pin 4 DC	0		2.0	V
Output DC offset voltage	$\Delta V_{ODC}$	Output voltage difference at the time of changeover from switch A to B, and vice versa	-50	0	+50	mV
Crosstalk between channels	CRch	$R_g = 500\Omega$ , $R_L = \infty$ , other channel input, $R_g = 50\Omega$ , $V_{IN} = 2\text{Vp-p}$ , $f = 3.58\text{MHz}$	-58	-63		dB

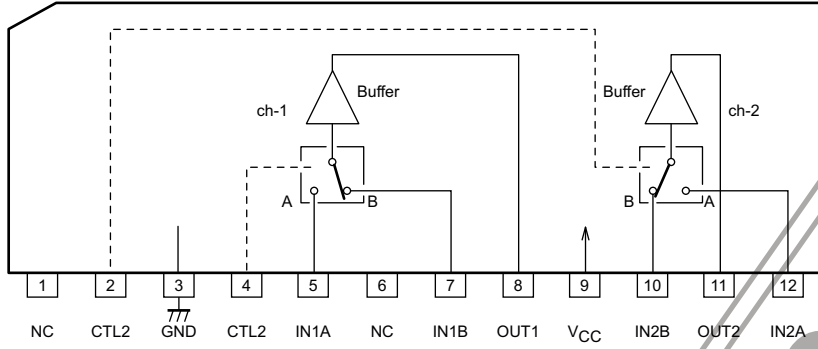
## Package Dimensions

unit : mm (typ)

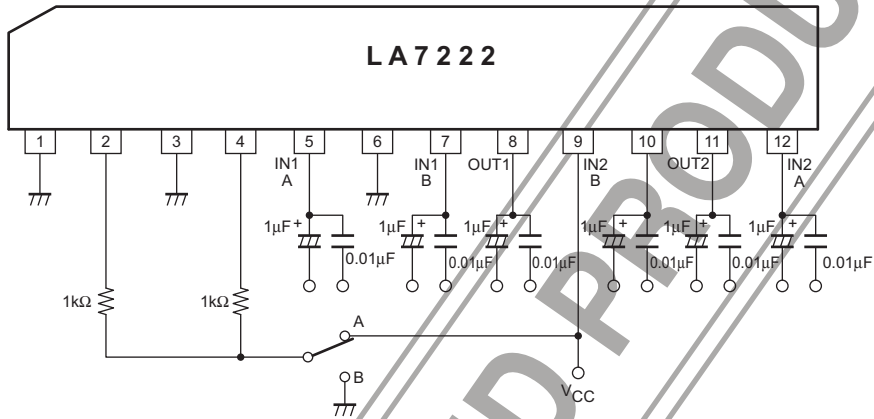
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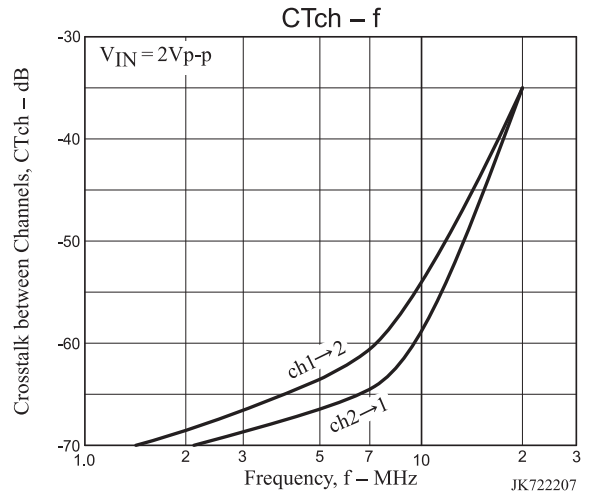
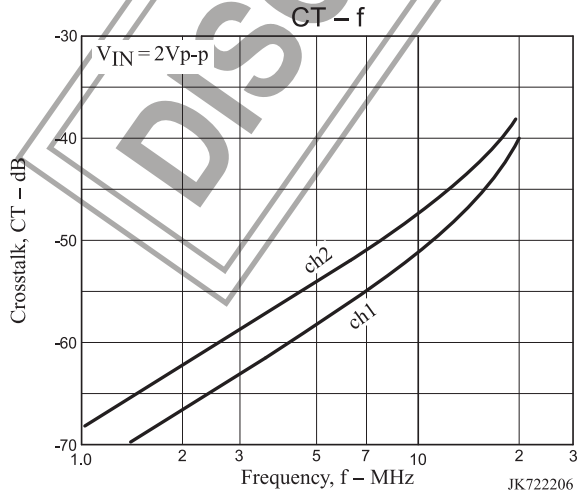
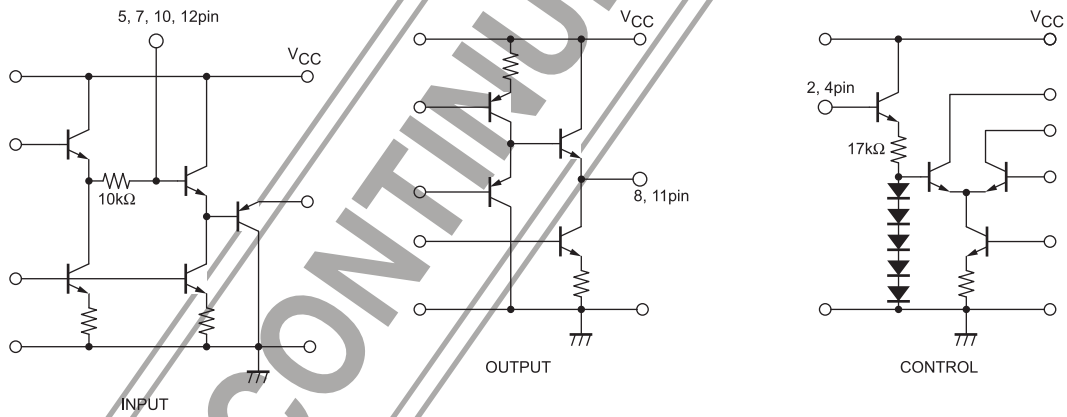
Block Diagram

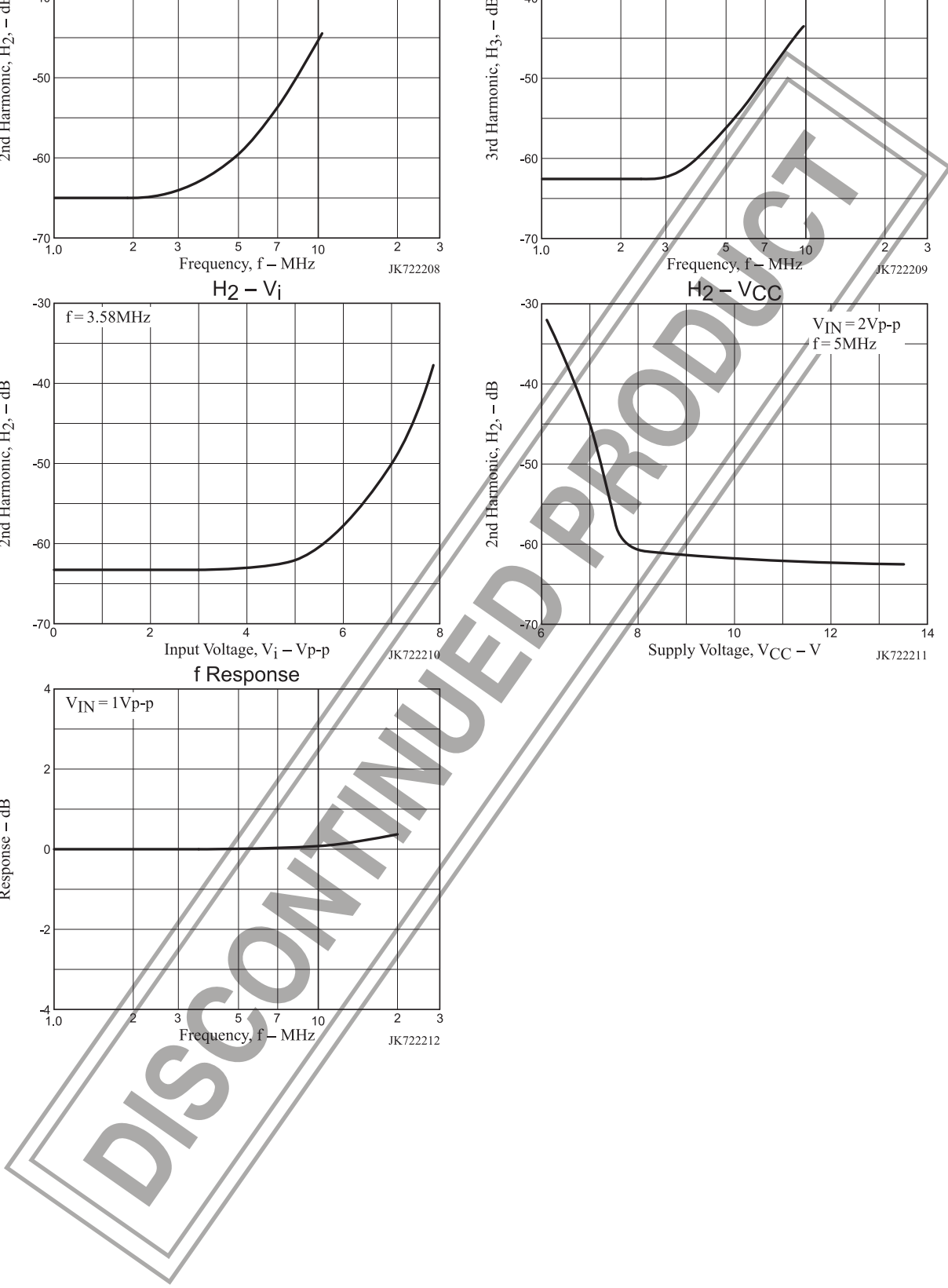
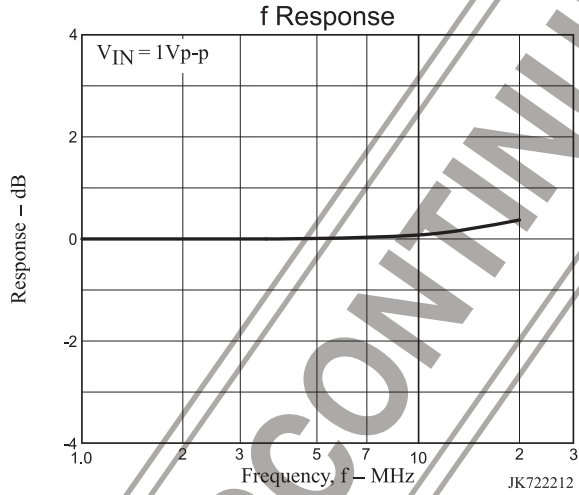
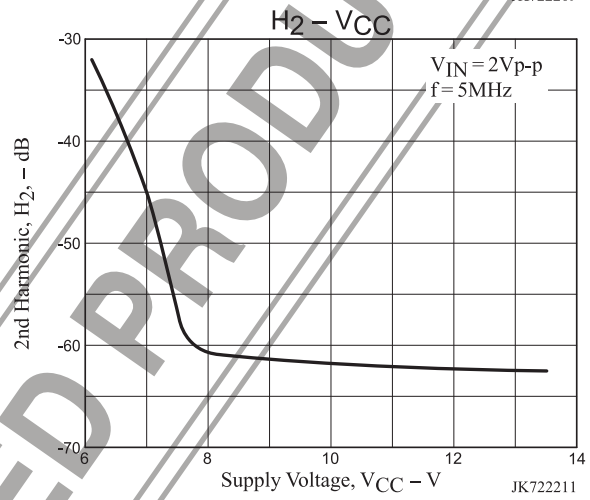
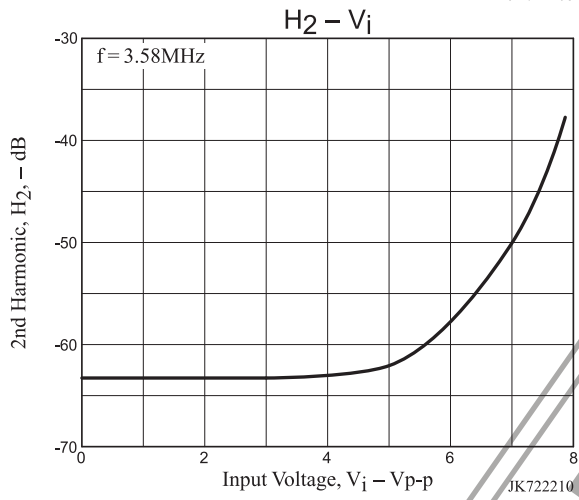
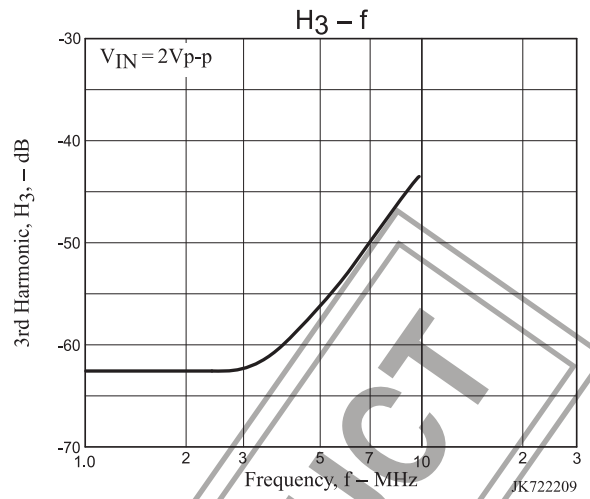
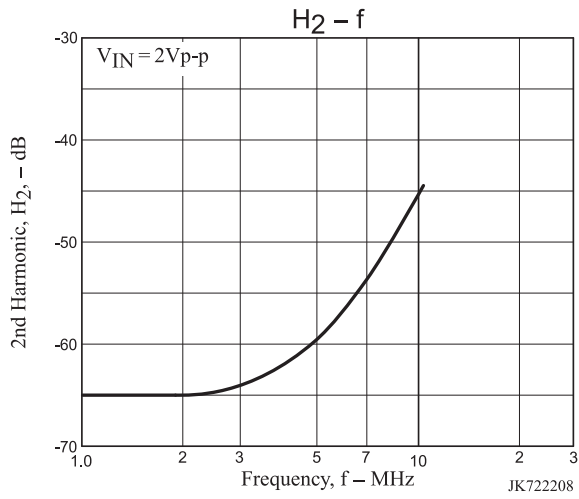


Test Circuit



Input/Output Equivalent Circuit





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