



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 _{CC} max		15	V
Allowable power dissipation	P _d max	Ta = 65°C	350	mW
Operating temperature	T _{opr}		-20 to +65	°C
Storage temperature	T _{stg}		-55 to +125	°C

Operating Conditions at Ta = 25°C

Parameter	Symbol	Conditions	Ratings	Unit
Recommended supply voltage	V _{CC}		12	V
Operating voltage	V _{CC} op		8 to 13	V

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LA7222

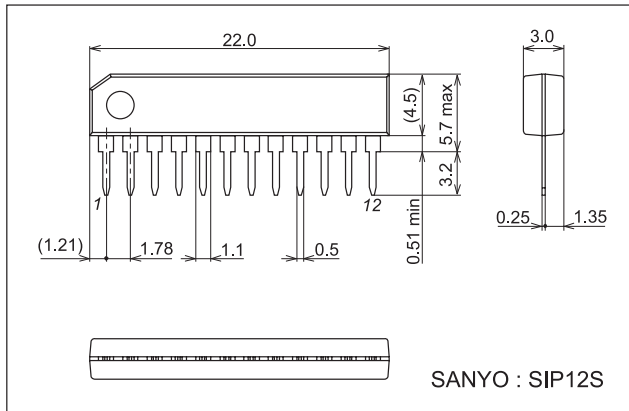
Electrical Characteristics at $T_a = 25^\circ\text{C}$, $V_{CC} = 12\text{V}$

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	Ω
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	ΔV_{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

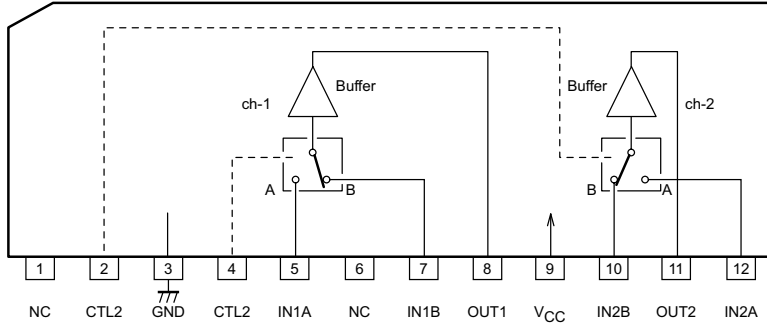
unit : mm (typ)

3116A

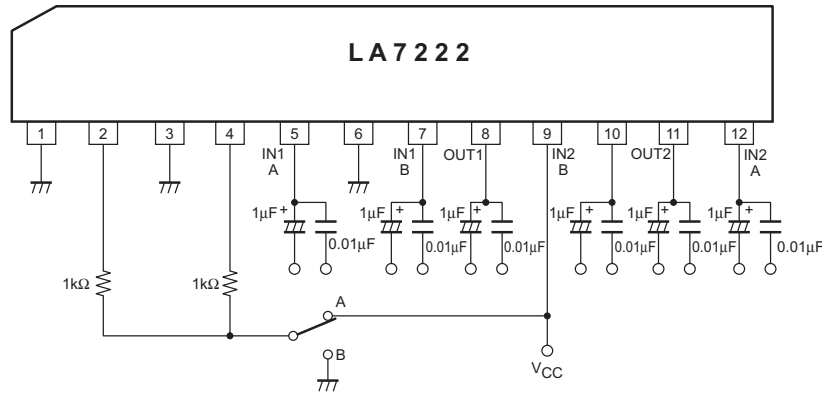


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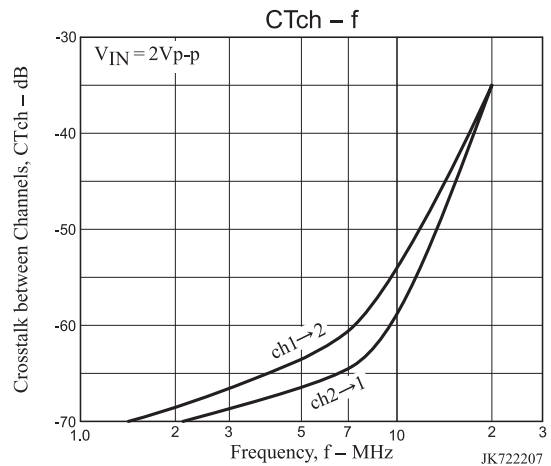
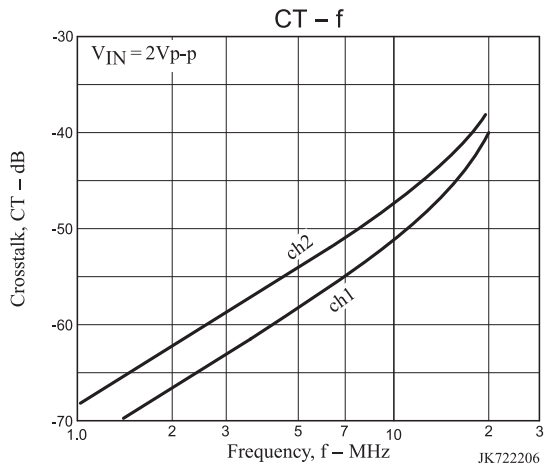
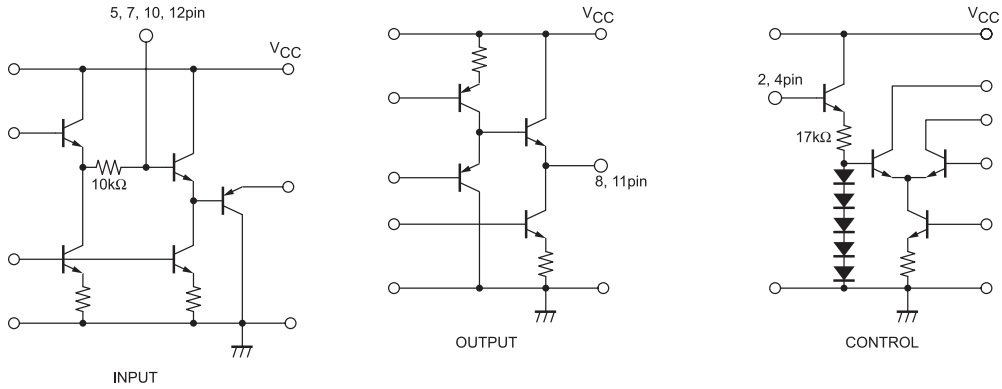
Block Diagram

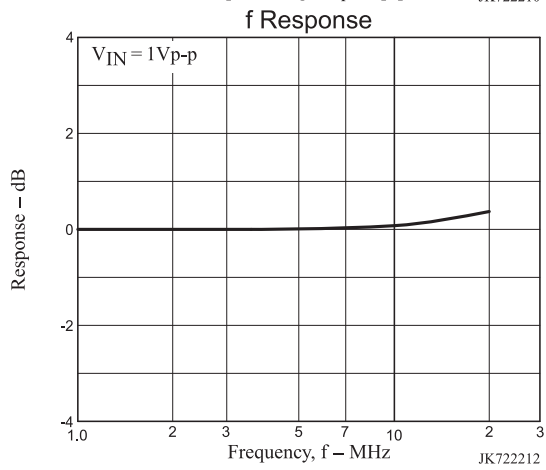
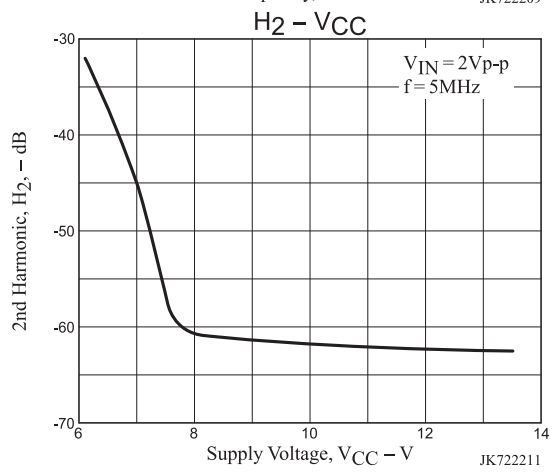
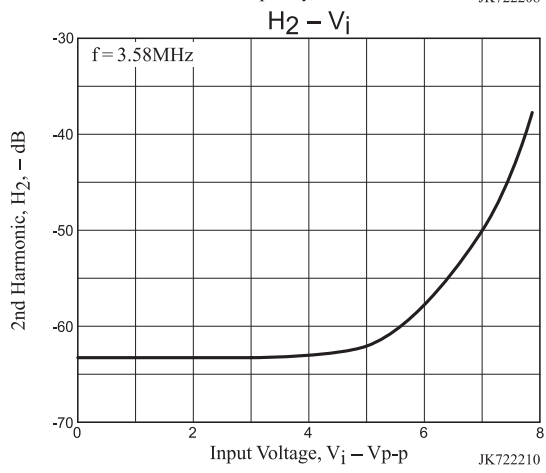
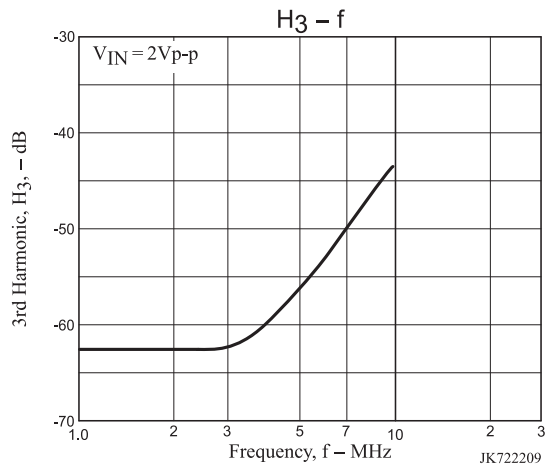
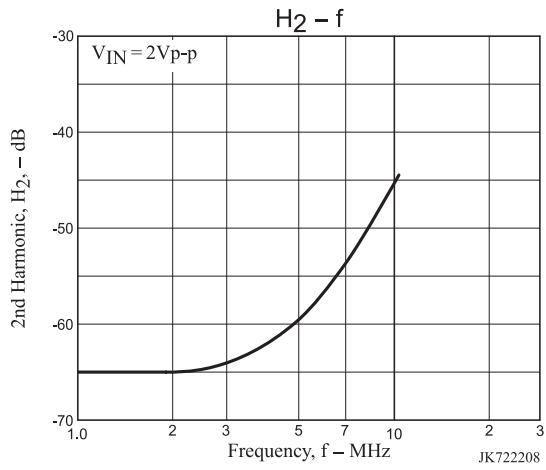


Test Circuit



Input/Output Equivalent Circuit





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