



SANYO Semiconductors

DATA SHEET

LA7910

Monolithic Linear IC
For TV
Tuner Band Selector

Overview

The LA7910 is an IC for tuner band selection of electronic tuning type television set. This IC is used for producing the VHF channel "L" band power supply/VHF channel "H" band power supply/UHF channel power supply for tuner and the CATV power supply according to the band select signal of 2 inputs.

Features

- 2 inputs and 4 outputs.
- Low output saturation voltage : 0.25V typ., $I_O = 60\text{mA}$.
- Compact 9-pin single-end package.

Functions

- VHF "L" band power supply output.
- VHF "H" band power supply output.
- UHF power supply output.
- CATV power supply output.

Specifications

Maximum Ratings at $T_a = 25^\circ\text{C}$

Parameter	Symbol	Conditions	Ratings	Unit
Maximum supply voltage	$V_g \text{ max}$		15	V
Maximum load current	$I_1 \text{ max}, I_2 \text{ max},$ $I_7 \text{ max}, I_8 \text{ max}$		-60	mA
Maximum supply current V_{CC2}	$I_6 \text{ max}$		10	mA
Input current	$I_3 \text{ max}, I_4 \text{ max}$		2	mA
Allowable power dissipation	$P_d \text{ max}$		200	mW
Operating temperature	T_{opr}		-20 to +85	$^\circ\text{C}$
Storage temperature	T_{stg}		-55 to +125	$^\circ\text{C}$

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LA7910

Electrical Characteristics at Ta = 25°C

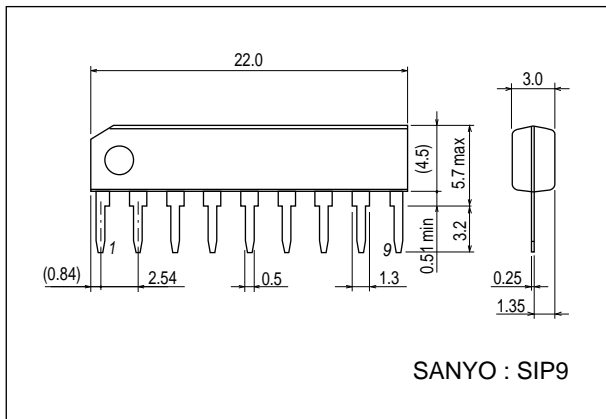
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Current drain	I_1, I_2, I_7, I_8				60	mA
Output saturation voltage	$V_O(\text{sat})$	$V_g = 12\text{V}, I_g = 5\text{mA}, I_O = 60\text{mA}$	0	0.25	0.7	V
Input high-level threshold voltage	V_{TH}				3.0	V
Input low-level threshold voltage	V_{TL}		0.8			V
Output leakage current	I_1, I_2, I_7, I_8	$T_a \leq 70^\circ\text{C}$			50	μA

* Current flowing into the IC is defined as positive ; current flowing out is defined as negative.

Package Dimensions

unit : mm (typ)

3017D



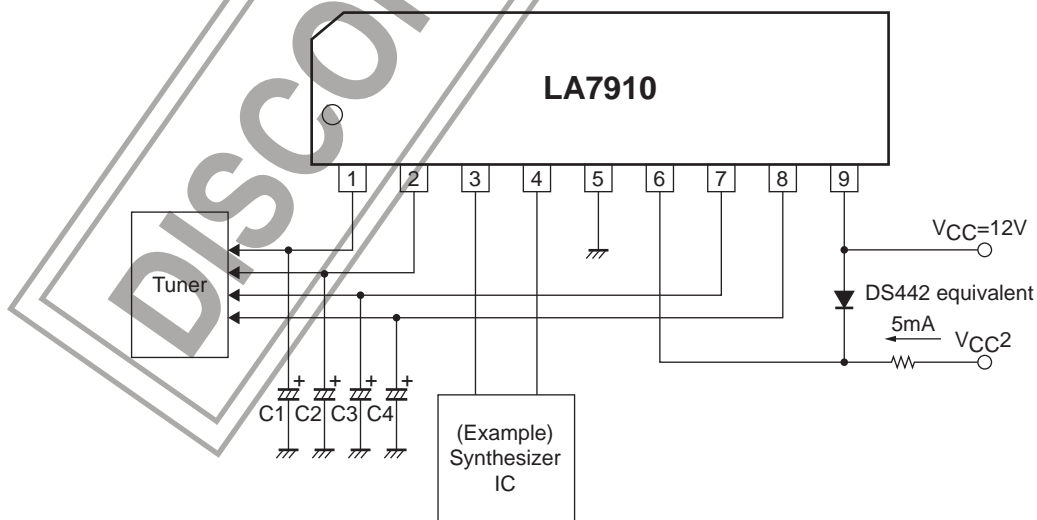
Truth Table

Input		Output			
Pin 3	Pin 4	Pin 1	Pin 2	Pin 7	Pin 8
L	L	H	Z	Z	Z
H	L	Z	H	Z	Z
L	H	Z	Z	H	Z
H	H	Z	Z	Z	H

Z : High impedance

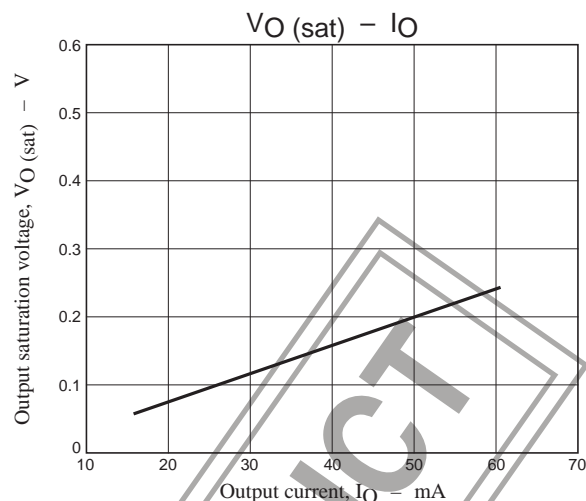
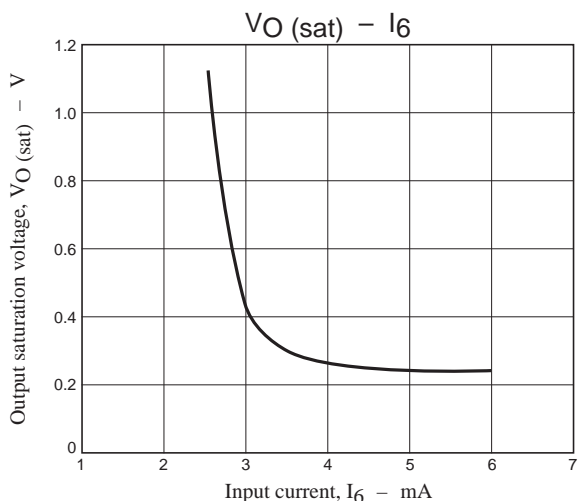
Input threshold voltage : $V_{TL} = 0.8\text{V}, V_{TH} = 3\text{V}$

Sample Application Circuit



Proper cares in using the IC

1. When using a capacitive load, connect a diode across pins 6 and 9 as shown above.
2. The value of load capacitors C1, C2, C3, C4 must not exceed 22 μF .



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