Ordering number : EN920F

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 = 60mA.
- 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 Ta = 25°C

Parameter	Symbol	Conditions	Ratings	Unit
Maximum supply voltage	V_9 max		15	V
Maximum load current	I_1 max, I_2 max, I_7 max, I_8 max		-60	mA
Maximum supply current $V_{CC}2$	I_6 max		10	mA
Input current	I_3 max, I_4 max		2	mA
Allowable power dissipation	Pd max		200	mW
Operating temperature	Topr		-20 to +85	°C
Storage temperature	Tstg		-55 to +125	°C

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Electrical Characteristics at Ta = 25°C

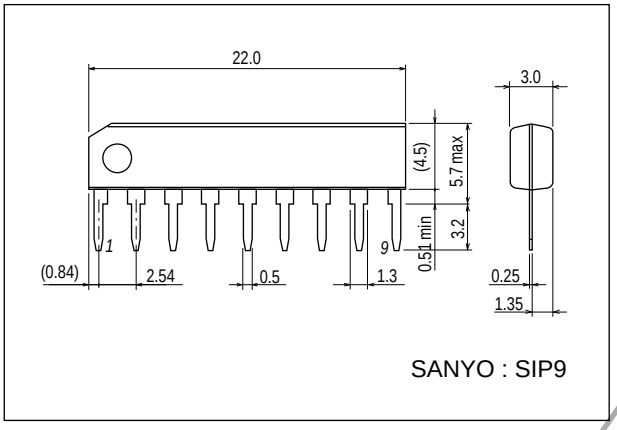
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Current drain	I_1, I_2, I_7, I_8				60	mA
Output saturation voltage	$V_{O\ (sat)}$	V_9 = 12V, I_6 = 5mA, I_O = 60mA	0	0.25	0.7	V
Input high-level threshold voltage	V_{TH}				3.0	V
Input low-level threshold voltage	V_{TL}		0.8			V
Output leakage current	I_1, I_2, I_7, I_8	Ta ≤ 70°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



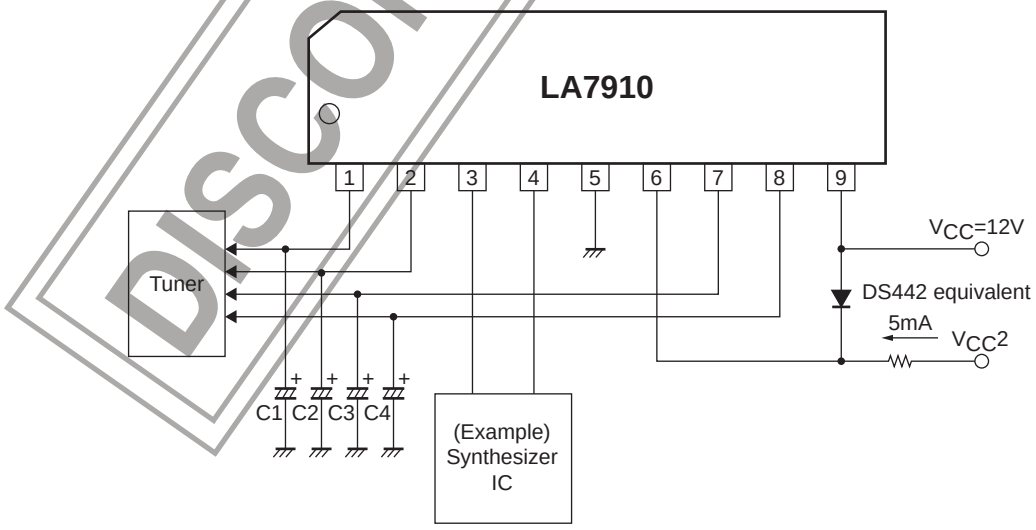
Truth Table

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} = 0.8V, V_{TH} = 3V

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 22μF.