



# LA7910

## 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.

### Functions

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

### Features

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

### Specifications

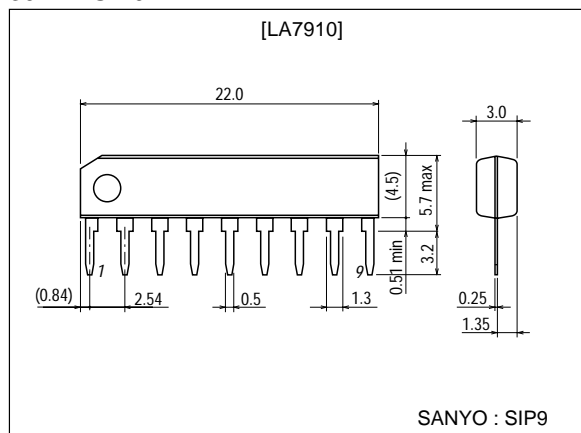
**Maximum Ratings** at  $T_a = 25^\circ\text{C}$

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	$^\circ\text{C}$

### Package Dimensions

unit:mm

3017D-SIP9



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O2500TN (KT)/O3095MH/N178YT/3204KI/7091KI No.920-1/3

Operating Characteristics at  $T_a = 25^\circ\text{C}$ 

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	$\mu\text{A}$

Note ) Current direction :

Current flowing into IC : Pulse (No sign)

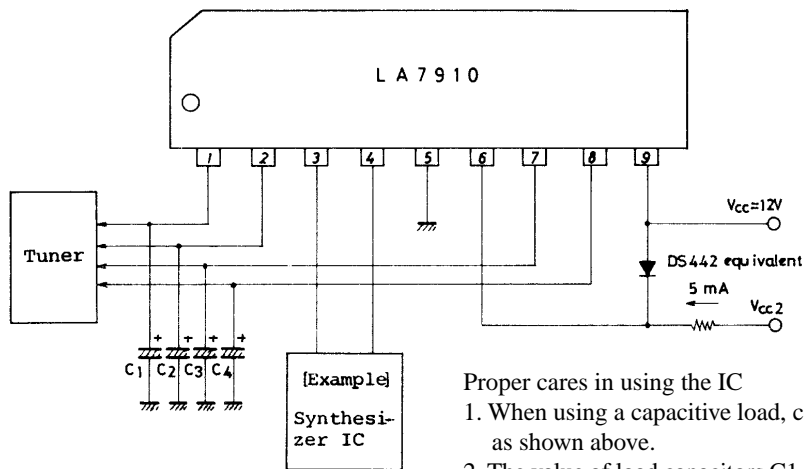
Current flowing out of IC : Minus (-)

## 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

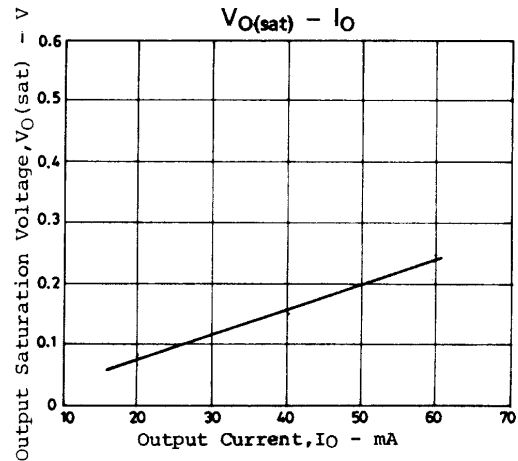
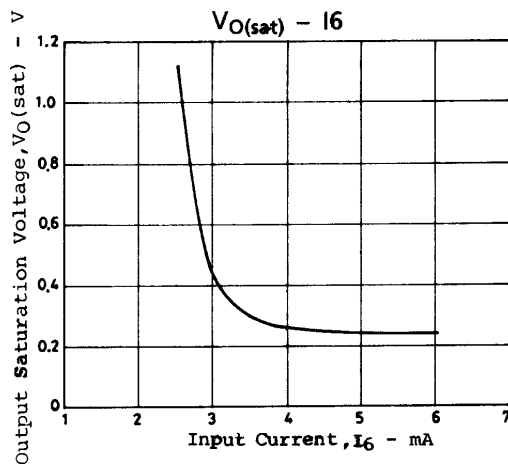
Input threshold voltage  
:  $V_{TL}=0.8\text{V}, V_{TH}=3\text{V}$

## 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  $C_1, C_2, C_3, C_4$  must not exceed  $22\mu\text{F}$ .



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