

**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

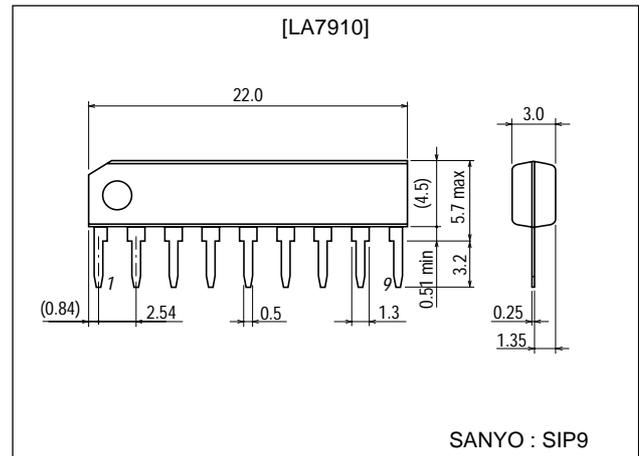
Maximum Ratings at $T_a = 25^\circ\text{C}$

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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LA7910

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	$V_{O(sat)}$	$V_g=12\text{V}, I_g=5\text{mA}, I_o=60\text{mA}$	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

Note) Current direction :

Current flowing into IC : Pulse (No sign)

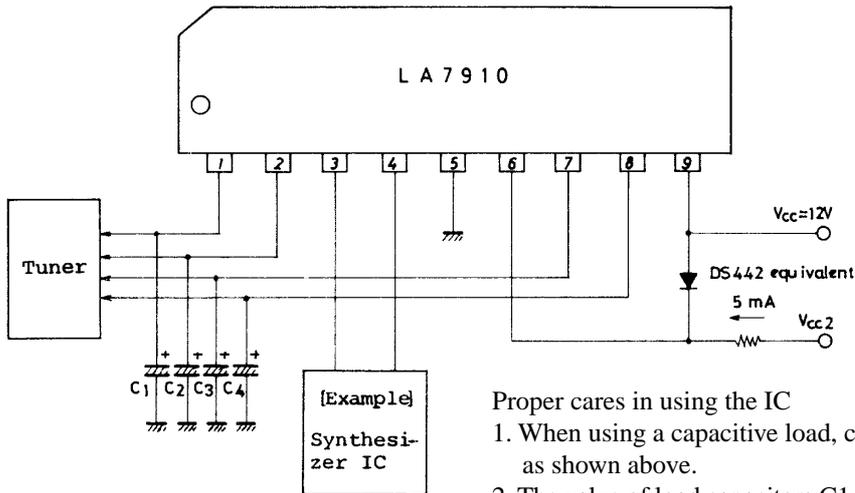
Current flowing out of IC : Minus (-)

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

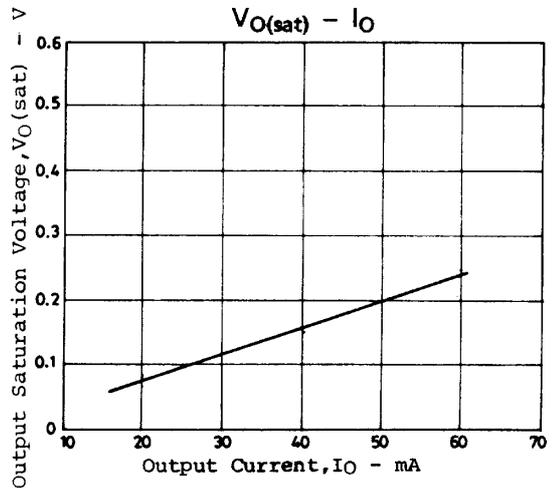
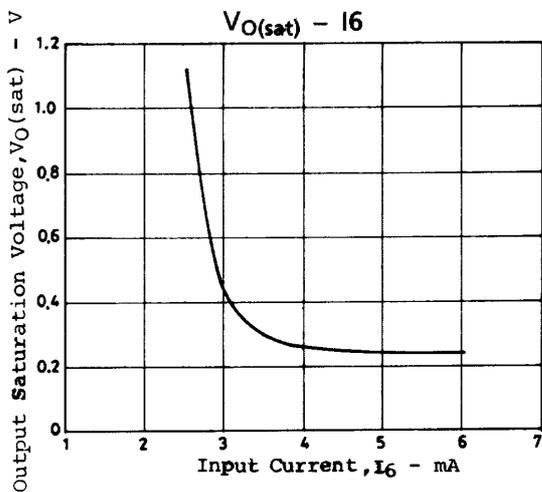
Input threshold voltage
: $V_{TL}=0.8\text{V}, V_{TH}=3\text{V}$

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 C1, C2, C3, C4 must not exceed $22\mu\text{F}$.



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