

**SANYO**

No. 920E

**LA7910****TV Tuner Band Selector**

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.

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

|                                  |                                               |             | unit             |
|----------------------------------|-----------------------------------------------|-------------|------------------|
| Maximum Supply Voltage           | $V_9$ max                                     | 15          | V                |
| Maximum Load Current             | $I_1$ max, $I_2$ max,<br>$I_7$ max, $I_8$ max | -60         | mA               |
| Maximum Supply Current $V_{CC2}$ | $I_6$ max                                     | 10          | mA               |
| Allowable Power Dissipation      | $P_d$ max                                     | 200         | mW               |
| Operating Temperature            | $T_{opr}$                                     | -20 to +85  | $^\circ\text{C}$ |
| Storage Temperature              | $T_{stg}$                                     | -55 to +125 | $^\circ\text{C}$ |
| Input Current                    | $I_3$ max, $I_4$ max                          | 2           | mA               |

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

|                                   |                                                                | min | typ  | max | unit          |
|-----------------------------------|----------------------------------------------------------------|-----|------|-----|---------------|
| Current Dissipation               | $I_1, I_2, I_7, I_8$                                           |     |      | 60  | mA            |
| Output Saturation Voltage         | $V_{O(sat)}$ $V_9=12\text{V}, I_6=5\text{mA}, I_O=60\text{mA}$ | 0   | 0.25 | 0.7 | V             |
| Input "H" Level Threshold Voltage | $V_{TH}$                                                       |     |      | 3.0 | V             |
| Input "L" Level Threshold Voltage | $V_{TL}$                                                       | 0.8 |      |     | V             |
| Output Leak Current               | $I_1, I_2, I_7, I_8$ $T_a \leq 70^\circ\text{C}$               |     |      | 50  | $\mu\text{A}$ |

Note) Current direction :

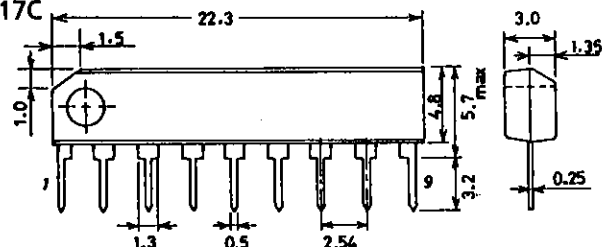
Current flowing into IC : Plus (No sign)

Current flowing out of IC : Minus (-)

**Package Dimensions**

(unit : mm)

3017C



SANYO : SIP9

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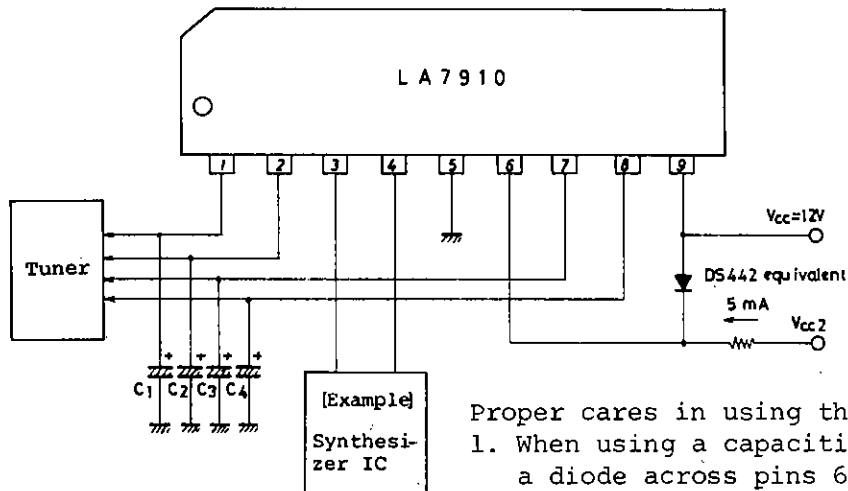
O3095MH/N178YT/3204KI/7091KI №920-1/3

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     |

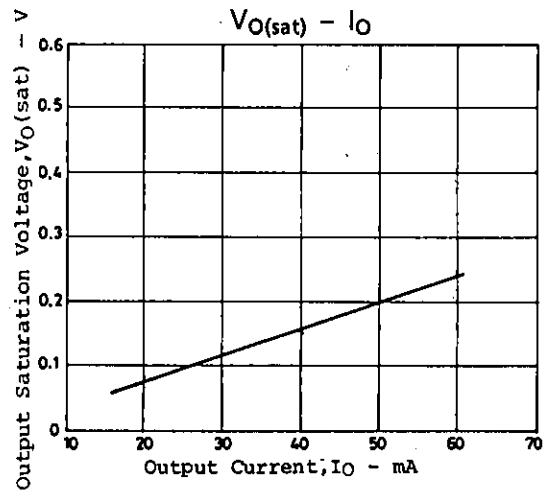
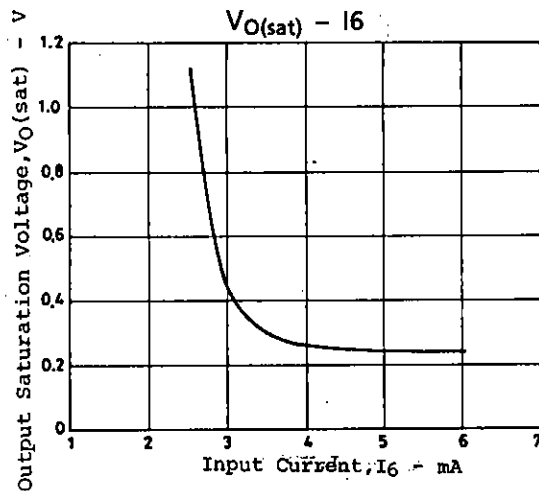
Input threshold voltage  
:  $V_{TL}=0.8V, V_{TH}=3V$

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 22uF.



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