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NTE1658 Integrated Circuit Television Tuner Band Selector

Description:

The NTE1658 is an integrated circuit in a 9-Lead SIP type package designed for electronically tuning television sets. 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
- Output Low Saturation Voltage: 250mV Typ ($I_O = 60\text{mA}$)

Absolute Maximum Ratings: ($T_A = +25^\circ\text{C}$ unless otherwise specified)

| | |
|---------------------------------------------------------------|----------------|
| Maximum Supply Voltage, $V_{9\text{max}}$ | 15V |
| Maximum Load Current | |
| $I_{1\text{max}}, I_{2\text{max}}$ | -60mA |
| $I_{7\text{max}}, I_{8\text{max}}$ | -60mA |
| Maximum Supply Current (V_{CC2}), $I_{6\text{max}}$ | 10mA |
| Input Current, $I_{3\text{max}}, I_{4\text{max}}$ | 2mA |
| Allowable Power Dissipation, $P_{d\text{max}}$ | 200mW |
| Operating Temperature Range, T_{opr} | -20° to +85°C |
| Storage Temperature Range, T_{stg} | -55° to +125°C |

Electrical Characteristics: ($T_A = +25^\circ\text{C}$ unless otherwise specified)

| Parameter | Symbol | Test Conditions | Min | Typ | Max | Unit |
|-----------------------------------|----------------------|---------------------------------------------------------|-----|-----|-----|---------------|
| Dissipation Current | I_1, I_2, I_7, I_8 | | - | - | 60 | mA |
| Output Saturation Voltage | | $V_9 = 12\text{V}, I_6 = 5\text{mA}, I_O = 60\text{mA}$ | 0 | 250 | 700 | mV |
| Input “H” Level Threshold Voltage | V_{TH} | | - | - | 3.0 | V |
| Input “L” 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 1. Current flowing into IC: Plus (No Sign)
 Current flowing out of IC: Minus

Truth Table

| Input | | Output | | | |
|-------|------|--------|------|------|------|
| Pin3 | Pin4 | Pin1 | Pin2 | Pin7 | Pin8 |
| L | L | H | Z | Z | Z |
| H | L | Z | H | Z | Z |
| L | H | Z | Z | H | Z |
| H | H | Z | Z | Z | H |

Note 2. Z: High Impedance

Input Threshold Voltage: $V_{TL} = 800\text{mV}$, $V_{TH} = 3\text{V}$

Pin Connection Diagram (Front View)

