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## NTE15002 Integrated Circuit Color TV Vertical Deflection Output Circuit

**Description:**

The NTE15002 is a monolithic linear IC in a 7-Lead SIP type package designed for small-aperture color TV vertical deflection output and has such features as greatly reduced number of external parts and low power dissipation. The NTE15002 can be used in conjunction with the NTE1845 for video chroma deflection use and the NTE1538 for deflection use.

**Features:**

- High Output
- On-Chip Pump-Up Circuit and Low Power Dissipation
- Minimum Number of External Parts Required

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

|  |                                     |
|--|-------------------------------------|
| Maximum Supply Voltage, $V_{6\text{max}}$ .....      | 30V                                 |
| Maximum Supply Voltage, $V_{3\text{max}}$ .....      | 60V                                 |
| Deflection Output Current, $I_{2\text{max}}$ .....   | $\pm 1.3A_{P-O}$                    |
| Allowable Power Dissipation, $P_{D\text{max}}$ ..... | 4.5W                                |
| Operating Temperature Range, $T_{\text{opg}}$ .....  | $-20^\circ$ to $+75^\circ\text{C}$  |
| Storage Temperature Range, $T_{\text{stg}}$ .....    | $-40^\circ$ to $+125^\circ\text{C}$ |

**Recommended Operating Conditions:** ( $T_A = +25^\circ\text{C}$  unless otherwise specified)

|   |                    |
|---|--------------------|
| Recommended Supply Voltage, $V_6$ .....     | 24V                |
| Operating Voltage Range, $V_6$ .....        | 18V to 27V         |
| Deflection Output Current, $I_{2P-P}$ ..... | up to $1.5A_{P-P}$ |

**Electrical Characteristics:** ( $T_A = +25^\circ\text{C}$ ,  $V_{CC} = 24V$  unless otherwise specified)

| Parameter                                | Symbol | Test Conditions | Min | Typ  | Max  | Unit |
|--|--------|-----------------|-----|------|------|------|
| Output Transistor Saturation Voltage (1) |        |                 | –   | 0.5  | 1.0  | V    |
| Output Transistor Saturation Voltage (2) |        |                 | –   | 1.8  | 2.6  | V    |
| Pin7 Saturation Voltage (1)              |        |                 | –   | –    | 1.5  | V    |
| Pin7 Saturation Voltage (2)              |        |                 | –   | 0.8  | 1.6  | V    |
| Quiescent Current                        |        |                 | 8.0 | 11.5 | 24.0 | mA   |
| Middle-Point Voltage                     |        |                 | –   | 11   | –    | V    |

**Pin Connection Diagram**  
(Front View)

