



ELECTRONICS, INC.

44 FARRAND STREET
 BLOOMFIELD, NJ 07003
 (973) 748-5089
<http://www.nteinc.com>

NTE7158 Integrated Circuit Deflection Circuit Power Amp for Color TV

Description:

The NTE7158 is an integrated circuit in a 7-Lead SIP type package designed for use as a power amplifier for driving a deflection circuit in large and medium screen size color televisions.

Features:

- Large Output Current: 2.2A_{P-P} Max
- Small Power Dissipation with a Pump-Up Circuit

Absolute Maximum Ratings: (T_A = +25°C unless otherwise specified)

| | |
|---|-----------------------------------|
| Power Supply Voltage, V _{CC} | 30V |
| Pump-Up Power Supply Voltage, V _{Vt} | 60V |
| Terminal Voltage, E _{in} | GND-0.3V to V _{Vt} +0.3V |
| Input Signal Voltage, e _{in} | 0V to 1.2V |
| Deflection Current (Note 1), i _d | ±1.5A |
| Operating Temperature Range, T _{opr} | -20° to +85°C |
| Storage Temperature Range, T _{stg} | -55° to +150°C |

Note 1. Power on time: 2ms, V_{CEO} = 60V.

Note 2. Using an infinite heat sink.

Recommended Operating Conditions:

| Parameter | Symbol | Test Conditions | Min | Typ | Max | Unit |
|---------------------------|-------------------|-----------------|-----|-----|-----|------------------|
| Power Supply | V _{CC} | | - | 27 | 29 | V |
| Deflection Output Current | I _{2P-P} | | - | - | 2.2 | A _{P-P} |

Electrical Characteristics: (V_{CC} = 24V, T_A = +25°C unless otherwise specified)

| Parameter | Symbol | Test Conditions | Min | Typ | Max | Unit |
|--|----------------------|-----------------|-----|-----|-----|------|
| Saturation Voltage of the Vertical Output Transistor | V _{V(sat)1} | Note 3 | 0.3 | 0.5 | 1.0 | V |
| | V _{V(sat)2} | Note 4 | 1.0 | 1.8 | 3.6 | V |
| Saturation Voltage of the Pump-Up Output Transistor | V _{P(sat)1} | Note 5 | 1.0 | 2.0 | 3.0 | V |
| | V _{P(sat)2} | Note 6 | 0.2 | 0.8 | 1.6 | V |
| Output Current with No Input | I _b | Note 7 | - | 26 | - | mA |
| Center Output Voltage | V _{center} | | 10 | 12 | 14 | V |

Notes:

- Note 3. SW₁: ON, SW₂: C, SW₃: ON, SW₄: B, SW₅: A, SW₆: A
Measure the voltage of Pin2.
- Note 4. SW₁: ON, SW₂: C, SW₃: ON, SW₄: A, SW₅: A, SW₆: B
Measure the voltage of Pin2, V_2 . $V_{V(sat)2} = V_{CC} - V_2$.
- Note 5. SW₁: ON, SW₂: B, SW₃: OFF, SW₄: A, SW₅: C, SW₆: A
Measure the voltage of Pin7, V_7 . $V_{P(sat)1} = V_{CC} - V_7$.
- Note 6. SW₁: OFF, SW₂: C, SW₃: OFF, SW₄: A, SW₅: B, SW₆: B
Measure the voltage of Pin7.
- Note 7. SW₁: ON, SW₂: A, SW₃: ON, SW₄: C, SW₅: A, SW₆: B
Measure the sink current into Pin3. Measure the voltage of Pin2.

Pin Connection Diagram
(Front View)

