



ELECTRONICS, INC.

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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, V₂. $V_{V(sat)2} = V_{CC} - V_2$.
- Note 5. SW₁: ON, SW₂: B, SW₃: OFF, SW₄: A, SW₅: C, SW₆: A
Measure the voltage of Pin7, V₇. $V_{P(sat)1} = V_{CC} - V_7$.
- 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)

