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NTE1767 Integrated Circuit Vertical Deflection Output Circuit for Color TV

Description:

The NTE1767 is a vertical deflection output circuit in a 8-Lead SIP type package for use in Color TV applications of 22 inch or larger. This device requires no voltage–boosted pulses and, therefore, can be connected to a chrominance–video deflection circuit (NTE1793), deflection circuit (NTE1664), or the like.

Features:

- Requires High Power Voltage only during Flyback Time, Greatly Reducing Power Consumption
- Deflection Control in the Preceeding Stage can be used both by Discrete Components and ICs

Absolute Maximum Ratings: ($T_A = +25^\circ\text{C}$, Note 1, unless otherwise specified)

Power Supply Voltage, V_{DC} (V_6)	30V
Circuit Current, I_{CC}	350mA
Deflection Circuit Voltage, V_3	65V
Deflection Input Signal Voltage, V_4	2.5V
Deflection Output Current, I_{DEF} (I_2)	–1.5 to +1.5A _{PEAK}
Voltage Booster Output Current, I_7	–1.5 to +1.5A _{PEAK}
Voltage Booster Output Voltage, V_7	V_6 V
Allowablw Power Dissipation, P_D	8W
Operating Temperature Range, T_{opr}	–20° to +75°C
Storage Temperature Range, T_{stg}	–40° to +150°C
Junction Temperature, T_J	+150°C

Note 1. A positive current flows into the NTE1767 and a negative current flows out of it.

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Power Supply Voltage (V_6)	V_{CC}		20	24	27	V
Deflection Output Current (I_2)	I_{DEF}		1.0	–	2.1	A _{P-P}

Electrical Characteristics: ($V_{CC} = 24V$, $T_A = +25^\circ C$, $R_L = 8\Omega$, $9.4mH$ unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Power Supply Current	I_{OC}		240	270	300	mA
Deflection Current	I_{DEF}		1.9	2.0	2.1	A_{P-P}
Neutral Point Potential	V_{ODC}		10	12	14	V
Flyback Pulse Voltage	RPV		46	49	54	V
Blanking Pulse Width	RPW		550	650	750	μs
Idling Current	I_Q		8	16	24	mA
Voltage Booster Discharge Saturation Voltage	V_{S6-7}		–	1.8	2.4	V
Voltage Booster Charge Saturation Voltage	V_{S7-1}		–	1.0	1.5	V
Voltage Booster Charge Current	I_7		55	85	120	mA
Deflection Circuit Output Saturation Voltage	V_{S2-1}		–	1.0	1.6	V
	V_{S3-2}		–	2.4	3.0	V
Deflection Circuit Input Saturation Voltage	V_4		0.85	1.0	1.15	V
Voltage Gain	A_{VO}		–	55	–	dB
Input Resistance	R_{in}		–	22	–	$k\Omega$
Thermal Resistance, Junction-to-Case	$R_{\theta JC}$		–	–	4.0	$^\circ C/W$

Pin Connection Diagram
(Front View)



