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NTE7056 Integrated Circuit Vertical Deflection Output Circuit for Color TV

Description:

The NTE7056 is an integrated circuit in a 9-Lead SIP type package designed for use as a vertical deflection output circuit for 9" to 21" color television sets. This device requires no voltage-boosted pulses and can therefore be connected to a chrominance-video deflection IC such as the NTE1793, deflection ICs such as the NTE1664, or similar devices. The package is designed for one-point fixing, reducing installation man-hours.

Features:

- Requires High Power Voltage Only During Flyback Time, Greatly Reducing Power Consumption.
- Deflection Control in the Preceding 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_7), V_{CC}	30V
Circuit Current, I_{CC}	350mA
Deflection Circuit Voltage, V_4	65V
Deflection Input Signal Voltage, V_5	2.5V
Voltage Booster Output Current, I_8	-1.1 to +1.1A _{peak}
Voltage Booster Output Voltage, V_8	V ₇ V
Allowable Loss, P_D	6W
Operating Temperature Range, T_{opr}	-20° to +75°C
Junction temperature, T_j	+150°C
Storage Temperature Range, T_{stg}	-40° to +150°C
Thermal Resistance, Junction-to-Case, R_{thJC}	6°C/W

Note 1. A positive current flows into the IC, a negative current flows out of it.

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Power Supply Voltage	V_{CC}		20	24	27	V
Deflection output current	I_{DEF}		0.8	-	1.4	A _{p-p}

Electrical Characteristics: ($T_A = +25^\circ\text{C}$, $V_{CC} = 24\text{V}$, $R_L = 9\Omega$, 22mH unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Power Supply Current	I_{CC}	$I_{DEF} = 1.3\text{A Typ}$	170	190	210	mA
Deflection Voltage	I_{DEF}		1.2	1.3	1.4	A_{P-P}
Neutral Point Potential	V_{ODC}		10	12	14	V
Flyback Pulse Voltage	RPV		46	49	54	V
Blanking Pulse Width	RPW		850	1000	1200	μs
Idling Current	I_Q		8	15	24	mA
Voltage Booster Discharge Saturation Voltage	V_{S7-8}		-	1.4	2.0	V
Voltage Booster Charge Saturation Voltage	V_{S8-2}		-	1.0	1.5	V
Voltage Booster Charge Current	I_8		55	85	120	mA
Deflection Circuit Output Saturation Voltage	V_{S3-2}		-	0.8	1.8	V
	V_{S4-3}		-	2.0	3.0	V
Deflection Circuit Input Saturation Voltage	V_5		0.85	1.00	1.15	V
Voltage Gain	A_{VO}	$R_L = \infty$	-	55	-	dB
Input Resistance	R_{in}		-	22	-	$k\Omega$

Pin Connection Diagram
(Front View)



