

## 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 <sub>PEAK</sub>
Voltage Booster Output Current, $I_7$	–1.5 to +1.5A <sub>PEAK</sub>
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 <sub>P-P</sub>

**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	$\mu s$
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)



