

NTE7153 Integrated Circuit Vertical Deflection Output Circuit

Description:

The NTE7153 is a vertical deflection output integrated circuit in a 7-Lead SIP type package designed for use in TV and CRT displays with excellent image quality that use a BUS control system signal processing IC. This device can drive the direct (even including a DC component) deflection yoke with the sawtooth wave output from the BUS control system signal processing IC. Because the maximum deflection current is 2.2A_{P-P}, the NTE7153 is suitable for use in large screen sets.

Features:

- Low Power Dissipation due to Built-In Pump-Up Circuit
- Vertical Output Circuit
- Thermal Protection Circuit Built-In
- Excellent Crossover Characteristics
- DC Coupling Possible

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

Maximum Supply Voltage, V_{CC6} max 34V
 Output Block Supply Voltage, V_{CC3} max 70V
 Deflection Output Current, I₂max -1.5 to +1.5A_{P-O}
 Allowable Power Dissipation (With Arbitrarily Large Heat Sink), P_Dmax 9W
 Operating Temperature Range, T_{opr} -20° to +85°C
 Storage Temperature Range, T_{stgv} -40° to +150°C
 Thermal Resistance, Junction-to-Case, R_{thJC} 4°C/W

Recommended Operation Conditions: (T_A = +25°C unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Recommended Supply Voltage	V _{CC6}		–	24	–	V
Operating Supply Voltage Range	V _{CC6} op		16	–	33	V
Recommended Deflection Output Current	I _{2P-P}		–	–	2.2	A _{P-P}

Electrical Characteristics: ($V_{CC6} = 24V$, $T_A = +25^{\circ}C$ unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Pump-Up Charge Saturation Voltage	V_{S7-1}	$I_7 = 20mA$	–	–	1.8	V
Pump-Up Discharge Saturation Voltage	V_{S6-7}	$I_7 = -1.1A$	–	–	3.2	V
Deflection Output Saturation Voltage (Lower)	V_{S2-1}	$I_2 = 1.1A$	–	–	1.5	V
Deflection Output Saturation Voltage (Upper)	V_{S3-2}	$I_2 = -1.1A$	–	–	3.5	V
Idling Current	I_{DL}		35	–	65	mA
Midpoint Voltage	V_{MID}		11	12	13	V

Pin Connection Diagram
(Front View)

