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NTE7182
Integrated Circuit
Vertical Output for High Definition Television

Description:

The NTE7182 is a vertical deflection output IC in a 7–Lead Staggered TO220 type package intended for high–definition TV and CRT displays in systems that support the use of a bus control system signal–processing IC. The sawtooth waveform from the bus control system signal–processing IC can directly drive the deflection yoke (including the DC component).

Since the NTE7182 provides a maximum deflection current of $2.2A_{P-P}$, it is optimal for large size CRTs.

Features:

- Low Power Operation Acheived by using Integrated Charge Pump Circuit
- Vertical Output Circuit
- Thermal Protection Circuit
- Excellent Crossover Characteristics
- Supports DC Coupling

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

Pump–Up Block Supply Voltage, $+B_2$ 34V
Output Block Supply Voltage, $+B_6$ 70V
Alloable Power Dissipation (Mounted on an Arbitrarily Large Heat Sink), $P_D$max 9W
Deflection Output Current, I_5 . . . . . –155 to $+1.5A_{P-O}$
Operating Temperature Range, T_{opr} . . . . . –20° to +85°C
Storage Temperature Range, T_{stg} . . . . . –40° to +150°C
Thermal Resistance, Junction–to–Case, R_{thJC} . . . . . 3°C/W

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Recommended Supply Voltage	$+B_2$		16	24	33	V
Deflection Output Current	I_{5p-p}		–	–	2.2	A_{P-P}

Electrical Characteristics: (T_A = +25°C, $+B_2$ = 24V unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Deflection Output Saturation Voltage (Lower)	V_{sat5-4}	I_5 = 1.1A	–	–	1.3	V
Deflection Output Saturation Voltage (Upper)	V_{sat6-5}	I_5 = –1.1A	–	–	3.2	V
Pump–Up Charge Saturation Voltage	V_{sat3-4}	I_3 = 20mA	–	–	1.8	V
Pump–Up Discharge Saturation Voltage	V_{sat2-3}	I_3 = –1.1A	–	–	3.0	V

Note 1. Current flowing into the device is positive (+) nd current flowing out is negative (–).

Electrical Characteristics (Cont'd): (T_A = +25°C, +B_2 = 24V unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Idling Current	I_{dl}		20	–	50	mA
Midpoint Voltage	V_{mid}		11	12	13	V

Note 1. Current flowing into the device is positive (+) nd current flowing out is negative (–).

Pin Configuration Diagram
(Front View)