ELECTRONICS, INC.
44 FARRAND STREET
BLOOMFIELD, NJ 07003
(973) 748–5089
http://www.nteinc.com

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NTE7188
Integrated Circuit
TV & CRT Vertical Output with Bus Control Support

Description:

The NTE7188 is a vertical deflection output IC in a 7–Lead Staggered TO220 type package designed for high image quality TV and CRT displays that supports the use of a bus control system signal–processing IC. The sawtooth waveform from the control system signal–processing IC can directly drive the deflection yoke (including the DC components). Since the NTE7188 provides a maximum deflection current of 1.8 A_{P-P}, it is optimal for small and medium size CRTs.

Features:

- Built–In Pump–Up Circuit for Low Power Dissipation
- Vertical Output Circuits
- Thermal Protection Circuit

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

Pump–Up Block Supply Voltage, +B2 max 34V
Output Block Supply Voltage, +B6 max 70V
Allowable Power Dissipation (Mounted on an arbitrarily large heat sink), $P_d$max 9W
Deflection Output Current, I_5max . . . . . –1.5 to +1.5 A_{P-O}
Thermal Resistance, Junction–to–Case, R_{thJC} . . . . . 3°C/W
Operating Temperature Range, T_{opr} . . . . . –20° to +85°C
Storage Temperature Range, T_{stg} . . . . . –40° to +150°C

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

Recommended Supply Voltage, +B2 . . . . . 24V
Operating Supply Voltage Range, $+B2_{op}$ . . . . . 16 to 33V
Deflection Output Current, I_{5P-P} . . . . . To 1.8A_{P-P}

Electrical Characteristics: (T_A = +25°C, +B2 = 24V unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Deflection Output Saturation Voltage (Lower)	$V_{sat}5–4$	I_5 = 900mA	–	–	1.3	V
Deflection Output Saturation Voltage (Upper)	$V_{sat}6–5$	I_5 = –900mA	–	–	3.2	V
Pump–up Charge Saturation Voltage	$V_{sat}3–4$	I_3 = 20mA	–	–	1.8	V
Pump–up Discharge Saturation Voltage	$V_{sat}2–3$	I_3 = 900mA	–	–	3.0	V
Idling Current	Idl		20	–	50	mA
Midpoint Voltage	Vmid		11	12	13	V

Pin Connection Diagran
(Front View)