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NTE7205 Integrated Circuit Verticle Deflection Output Circuit

Description:

The NTE7205 is a monolithic linear integrated circuit in a 10-Lead SIP type package designed for use in color TV and monitor verticel deflection output applications. This device is intended for direct drive of the deflection coils with a high efficiency.

Features:

- High Output Current
- Pump-Up Circuit
- Low Dissipation
- Direct Drive to the Deflection Coils
- Internal Thermal Shutdown Circuit

Applications:

- Power Amplifier
- Thermal Protection
- Flyback Generator

Absolute Maximum Ratings: ($T_A = +25^\circ\text{C}$ unless otherwise specified)

Supply Voltage, $V_{CC(L)}$	35V
Flyback Peak Voltage, V_6, V_9	70V
Flyback Generator Voltage, V_6	35V
Input Voltage, V_1, V_{10}	$V_{CC(L)} - 0.5V$
Peak-to-Peak Output Curtent (Note 1), $I_{O(P-P)}$	3A
Peak-to-Peak Flyback Current ($f = 50$ or 60Hz , $T_{fb} \leq 1.5\text{mS}$), $I_{4(P-P)}$	3A
Total Power Dissipation ($T_A = +25^\circ\text{C}$), P_D	15W
Operating Ambient Temperature, T_{opt}	-25° to $+70^\circ\text{C}$
Storage Temperature Range, T_{stg}	-40° to $+150^\circ\text{C}$
Thermal Resistance, Junction-to-Case, $R_{th(JC)}$	12°C/W
Thermal Resistance, Junction-to-Ambient, $R_{th(JA)}$	60°C/W
Thermal Shutdown Temperature, T_{tsd}	150°C/W

Note 1. Maximum output peak-to-peak current in TV monitor set.

Electrical Characteristics: ($V_{CC(L)} = 35V$ unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Supply Voltage	$V_{CC(L)}$		15	25	35	V
	$V_{CC(H)}$		15	-	70	V
Supply Quiescent Current	$I_{CC(L)}$		-	6	16	mA
	$I_{CC(H)}$		-	22	36	mA
Pin4 Saturation Voltage to GND	V_{4SAT}	$I_4 = 20mA$	-	0.5	1	V
Saturation Voltage to Supply	V_{HSAT}	$I_6 = 1.2A$	-	1.6	2.2	V
		$I_6 = 700mA$	-	1.3	1.8	V
Saturation Voltage to GND	V_{LSAT}	$I_6 = 1.2A$	-	1	1.4	V
		$I_6 = 700mA$	-	0.7	1	V
Output Center Voltage	V_{MID}	$R_1 = 5.6K, R_{fb} = 45K, V_1 = V_{10} = 2V$	-	18	-	V
Input Bias Current	I_{BIAS}	$V_1 = 1V, V_{10} = 2V$	-	-0.1	-1	μA

Pin Connection Diagram
(Front View)

