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NTE1674
Integrated Circuit
TV Vertical Deflection Output Circuit

Description:

The NTE1674 is an integrated circuit in a 9–Lead SIP type package designed for use as a TV vertical deflection output circuit. When used in combination with a deflection signal processing IC, this device can facilitate a vertical output circuit design.

Features:

- Low Power Consumption
- Direct Deflection Coil Driving Capability
- High Breakdown Voltage

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

Supply Voltage, V_{CC} 27.6V
Circuit Voltage, $V_{4–1}$ . . . . . 0 to 60V
Circuit Voltage, $V_{6–1}$ . . . . . 0 to 2.5V
Circuit Voltage, $V_{7–1}$ . . . . . 0 to 1.3V
Supply Current, I_{CC} 250mA
Circuit Current, I_2 . . . . . –1000 to +1000$mA_{O–P}$
Circuit Current, I_8 . . . . . –1000 to +1000$mA_{O–P}$
Power Dissipation, P_D 6.66W
Operating Ambient Temperature Range, T_{opr} . . . . . –20° to +70°C
Storage Temperature Range, T_{stg} . . . . . –55° to +150°C
Thermal Resistance, Junction–to–Case, R_{thJC} . . . . . 12°C/W

Note 1. $\oplus$ and $\ominus$ are flow–in and flow–out currents to/from the circuit respectively.

Electrical Characteristics: (T_A = +25°C unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Deflection Current	$I_{y(P–P)}$		860	930	1000	$mA_{P–P}$
Deflection Current Linearity	$\Delta I_{y(+)}$		25	–	75	$mA_{P–P}$
	$\Delta I_{y(–)}$		22	–	85	$mA_{P–P}$
Deflection Current Change with Ambient Temperature	$\Delta I_y/T_A$	T_A = –20° to +70°C	–1.5	–	+1.5	%

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Center Voltage	V_{MID}		12.1	12.6	13.1	V
Flyback Pulse Amplitude	$V_{(FBP)}$		47	–	–	V
Static Circuit Current	I_{CQ}	V_{4-1} = 24V, V_{9-1} = 24V, V_{7-1} = 0V	7	13	22	mA
Output Transistor Saturation Voltage	V_{4-2}	V_{4-1} = V_{9-1} = 24V, Pin2 – 1 = 56Ω, V_{6-1} = 0.3V, V_{7-1} = 0V	–	2.7	3.7	V
	V_{2-1}	V_{4-1} = V_{9-1} = 24V, Pin2 – 4 = 56Ω, V_{6-1} = 1.3V, V_{7-1} = 0V	–	0.6	1.0	V
Q_{21} Saturation Voltage	V_{8-1}	V_{9-1} = 24V, Pin9 – 8 = 1.2kΩ, V_{7-1} = 0V	–	–	0.5	V

Pin Connection Diagram
(Front View)