

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: ($T_A = +25^\circ\text{C}$ 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 +1000mA _{O-P}
Circuit Current, I_8	-1000 to +1000mA _{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: ($T_A = +25^\circ\text{C}$ 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	$\Delta I_y/T_A$	$T_A = -20^\circ\text{ to } +70^\circ\text{C}$	-1.5	—	+1.5	%

Electrical Characteristics (Cont'd): ($T_A = +25^{\circ}\text{C}$ 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}	$V_{4-1} = 24\text{V}$, $V_{9-1} = 24\text{V}$, $V_{7-1} = 0\text{V}$	7	13	22	mA
Output Transistor Saturation Voltage	V_{4-2}	$V_{4-1} = V_{9-1} = 24\text{V}$, $\text{Pin}2 - 1 = 56\Omega$, $V_{6-1} = 0.3\text{V}$, $V_{7-1} = 0\text{V}$	–	2.7	3.7	V
	V_{2-1}	$V_{4-1} = V_{9-1} = 24\text{V}$, $\text{Pin}2 - 4 = 56\Omega$, $V_{6-1} = 1.3\text{V}$, $V_{7-1} = 0\text{V}$	–	0.6	1.0	V
Q_{21} Saturation Voltage	V_{8-1}	$V_{9-1} = 24\text{V}$, $\text{Pin}9 - 8 = 1.2\text{k}\Omega$, $V_{7-1} = 0\text{V}$	–	–	0.5	V

Pin Connection Diagram
(Front View)

