



ELECTRONICS, INC.

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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:** ( $T_A = +25^\circ\text{C}$ 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 <sub>O-P</sub>
Circuit Current, $I_8$ .....	-1000 to +1000mA <sub>O-P</sub>
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 <sub>P-P</sub>
Deflection Current Linearity	$\Delta I_{y(+)}$		25	-	75	mA <sub>P-P</sub>
	$\Delta I_{y(-)}$		22	-	85	mA <sub>P-P</sub>
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)

