



SANYO Semiconductors

DATA SHEET

Monolithic Linear IC

LA78040B — The Vertical Deflection Output IC With Bus Control Support for TVs and CRT Display

Overview

The LA78040B is a vertical deflection output IC for TVs and CRT displays with excellent image quality that use a BUS control system signal processing IC. This IC can drive the direct (even including a DC component) deflection yoke with the saw tooth wave output from the BUS control system signal processing IC.

Functions

- Low power dissipation due to built-in pump-up circuit
- Vertical output circuit
- Thermal protection circuit built in
- Excellent crossover characteristics
- DC coupling possible

Specifications

Maximum Ratings at $T_a = 25^\circ\text{C}$

Parameter	Symbol	Conditions	Ratings	Unit
Pump-up block supply voltage	$V_{CC2 \text{ max}}$		34	V
Output block supply voltage	$V_{CC6 \text{ max}}$		70	V
Allowable power dissipation	$P_d \text{ max}$	Mounted on an arbitrarily large heat sink.	9	W
Deflection output current	$I_5 \text{ max}$		-1.4 to +1.4	Ap-o
Thermal resistance	$\theta_j\text{-c}$		3	$^\circ\text{C/W}$
Operating temperature	T_{opr}		-20 to +85	$^\circ\text{C}$
Storage temperature	T_{stg}		-40 to +150	$^\circ\text{C}$

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LA78040B

Operating Conditions at $T_a = 25^\circ\text{C}$

Parameter	Symbol	Conditions	Ratings	Unit
Recommended supply voltage	V_{CC2} max		24	V
Operating supply voltage range	V_{CC2} op		16 to 33	V
Deflection output current	I_{5p-p}		to 1.8	Ap-p

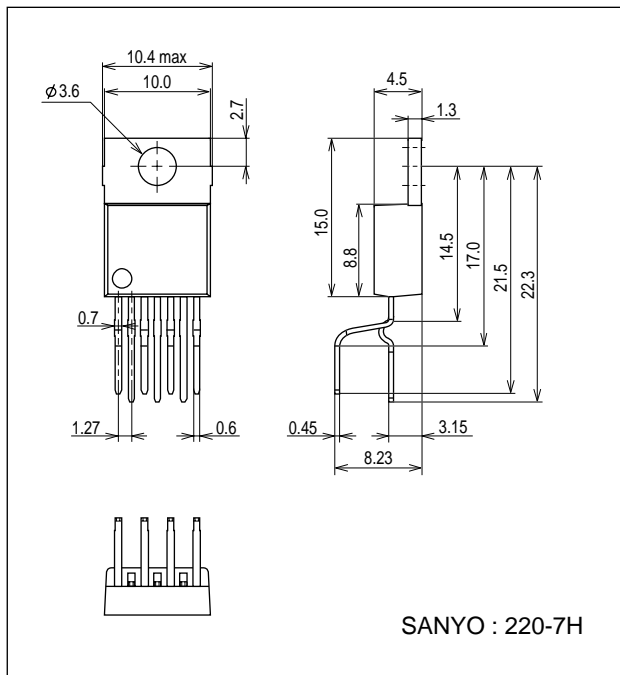
Operating Characteristics at $T_a = 25^\circ\text{C}$, $V_{CC2} = 24\text{V}$

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Deflection output saturation voltage (lower)	V_{sat5-4}	$I_5 = 0.9\text{A}$			1.3	V
Deflection output saturation voltage (upper)	V_{sat6-5}	$I_5 = -0.9\text{A}$			3.2	V
Pump-up charge saturation voltage	V_{sat3-4}	$I_3 = 20\text{mA}$			1.8	V
Pump-up discharge saturation voltage	V_{sat2-3}	$I_3 = -0.9\text{A}$			3.0	V
Idling current	I_{dl}		20		50	mA
Midpoint voltage	V_{mid}		11.0	12.0	13.0	V

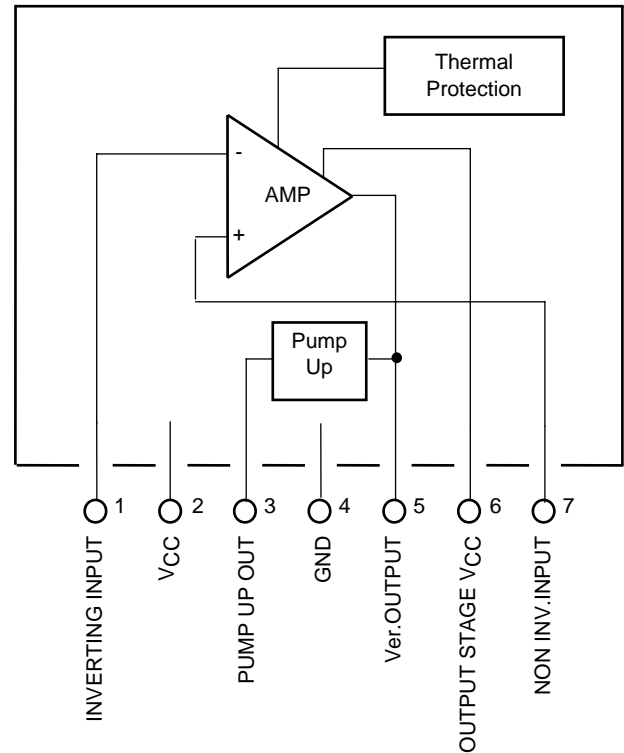
Note: Current flowing into the IC is positive (+) and current flowing out is negative (-).

Package Dimensions

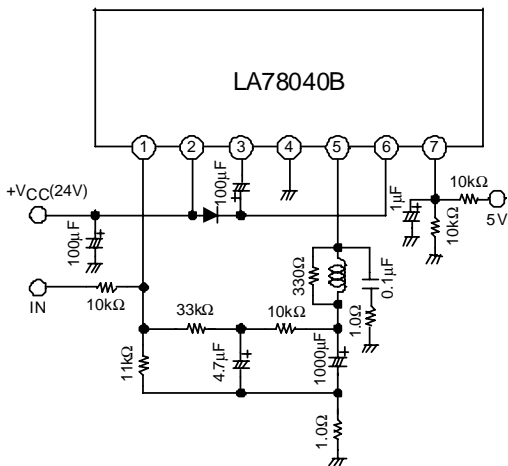
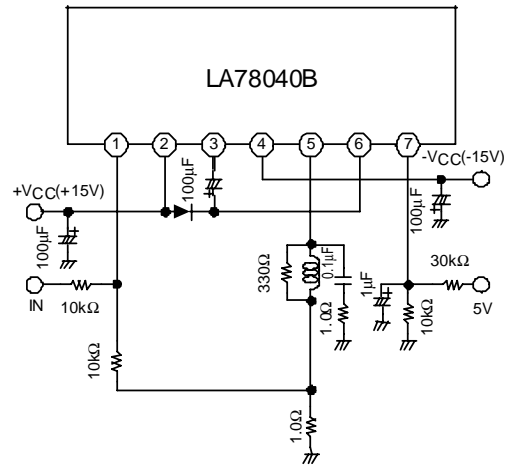
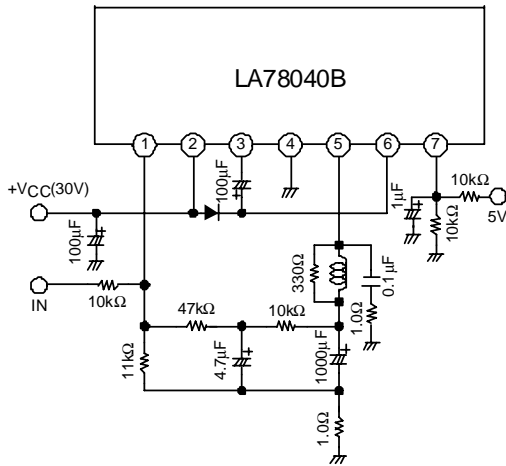
unit : mm (typ)
3286



Pin Connections and Functional Block Diagram



Sample Application Circuits



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