



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	+B2 max		34	V
Output block supply voltage	+B6 max		70	V
Allowable power dissipation	$P_d$ max	Mounted on an arbitrarily large heat sink.	9	W
Deflection output current	$I_5$ max		-1.4 to +1.4	Ap-o
Thermal resistance	$\theta_j$ -c		3	$^\circ\text{C}/\text{W}$
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	+B2		24	V
Operating supply voltage range	+B2 op		16 to 33	V
Deflection output current	I5p-p		to 1.8	Ap-p

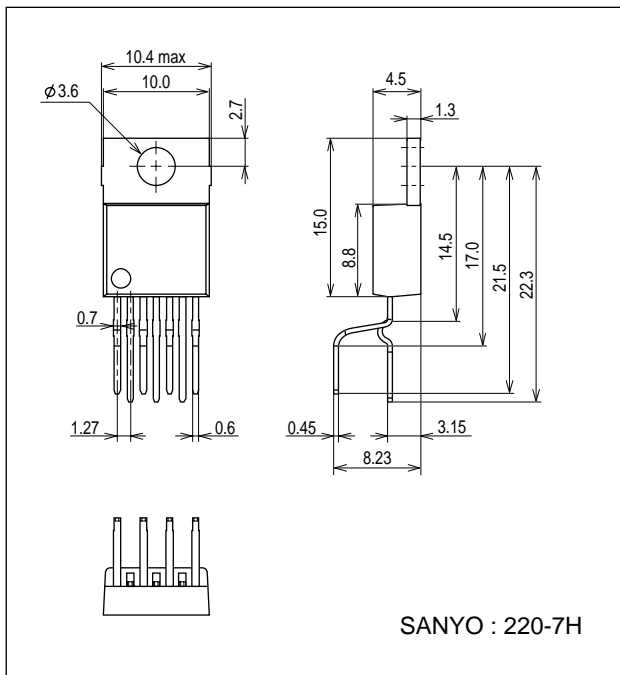
## Operating Characteristics at $T_a = 25^\circ\text{C}$ , +B2 = 24V

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Deflection output saturation voltage (lower)	Vsat5-4	I5 = 0.9A			1.3	V
Deflection output saturation voltage (upper)	Vsat6-5	I5 = -0.9A			3.2	V
Pump-up charge saturation voltage	Vsat3-4	I3 = 20mA			1.8	V
Pump-up discharge saturation voltage	Vsat2-3	I3 = -0.9A			3.0	V
Idling current	I <sub>dl</sub>		20		50	mA
Midpoint voltage	V <sub>mid</sub>		11.0	12.0	13.0	V

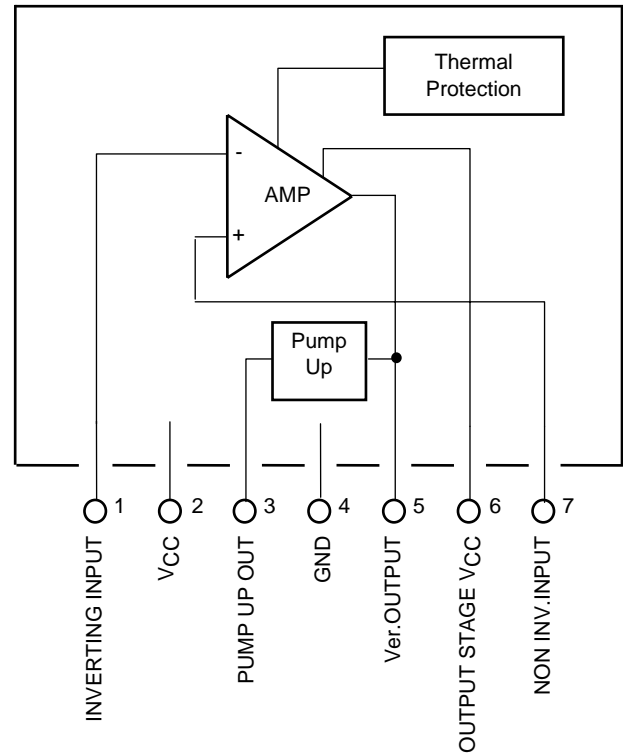
Note: Current flowing into the IC is positive (+) and current flowing out is negative (-).

## Package Dimensions

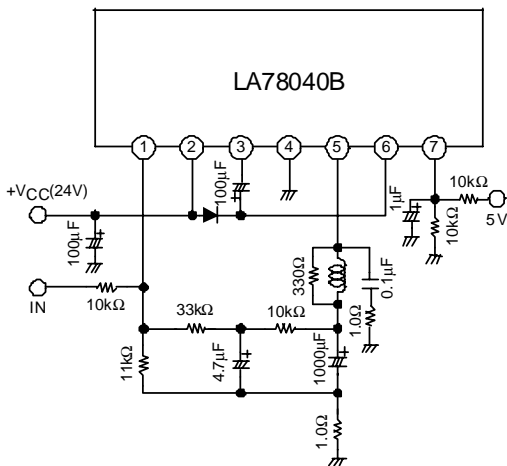
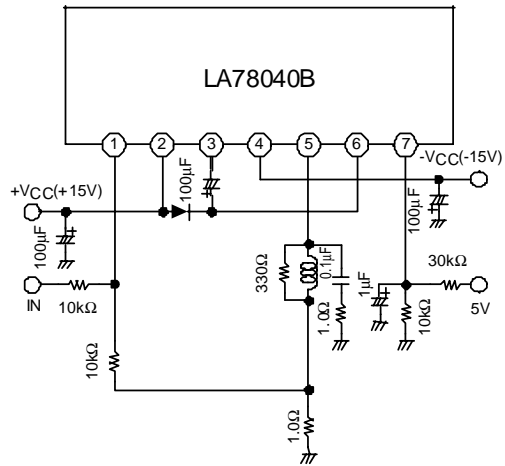
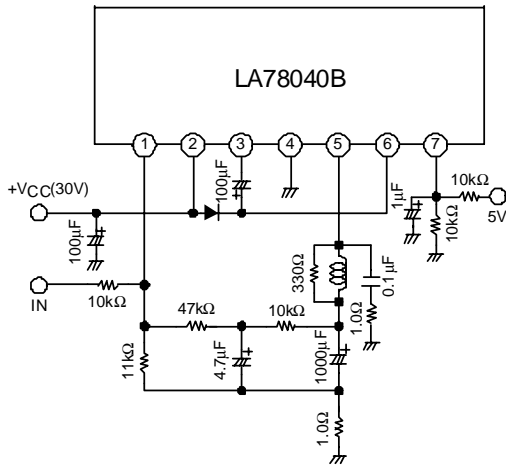
unit : mm (typ)  
3286



## Pin Connections and Functional Block Diagram



Sample Application Circuits



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