



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 Ta = 25°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	Pd max	Mounted on an arbitrarily large heat sink.	9	W
Deflection output current	I5 max		-1.4 to +1.4	Ap-o
Thermal resistance	θ j-c		3	°C/W
Operating temperature	Topr		-20 to +85	°C
Storage temperature	Tstg		-40 to +150	°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	I _{5p-p}		to 1.8	Ap-p

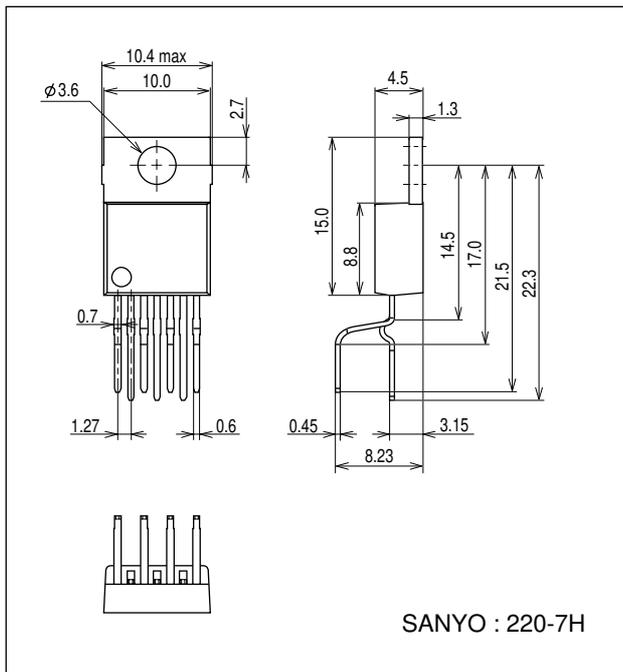
Operating Characteristics at $T_a = 25^\circ\text{C}$, +B2 = 24V

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

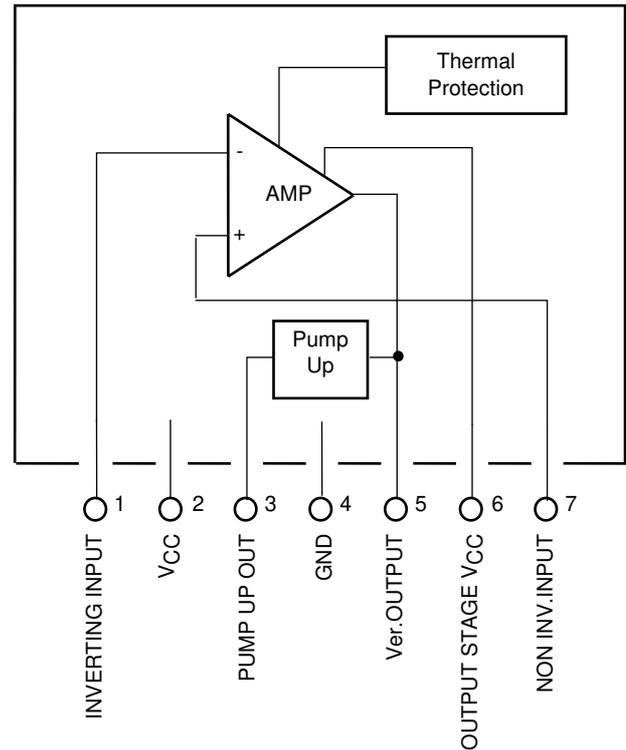
Note: Current flowing into the IC is positive (+) and current flowing out is negative (-).

Package Dimensions

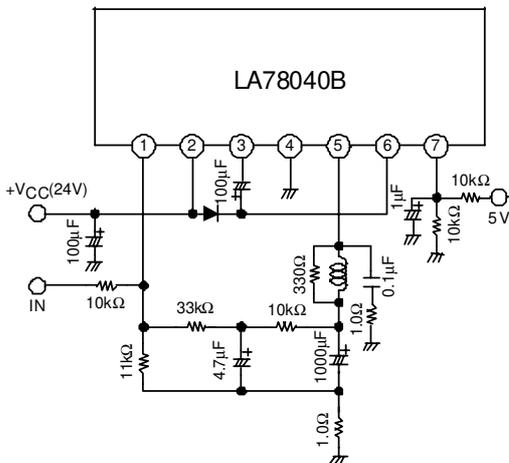
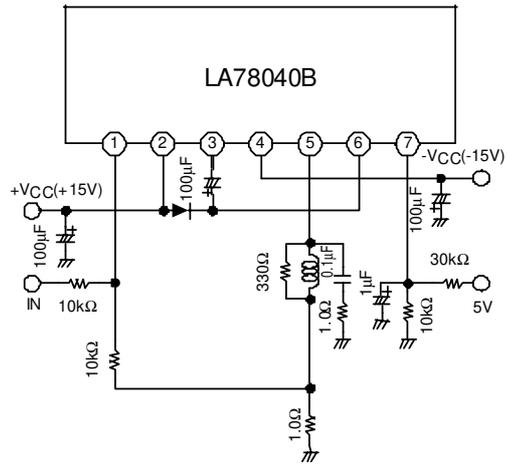
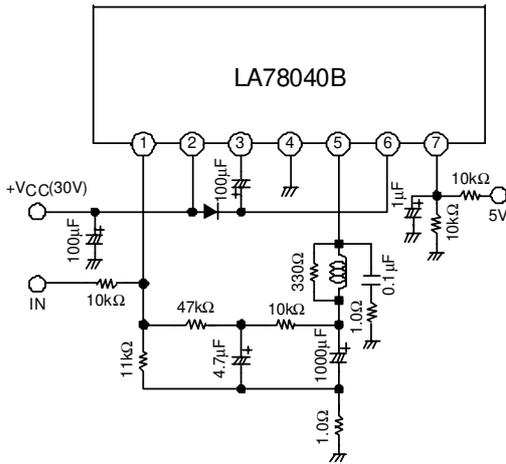
unit : mm (typ)
3286



Pin Connections and Functional Block Diagram



Sample Application Circuits



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