

SANYO Semiconductors DATA SHEET

An ON Semiconductor Company



Monolithic Linear IC
TV and CRT Display Vertical
Output IC with Bus Control
Support

Overview

The LA78041 is a vertical deflection output IC for high image quality TV and CRT displays that supports the use of a bus control system signal-processing IC. The sawtooth waveform from the bus control system signal-processing IC can directly drive the deflection yoke (including the DC component). Color TV vertical deflection system adjustment functions can be controlled over a bus system by connecting the LA78041 to a Sanyo LA768X series or LA769XX series bus control system signal-processing IC.

Since the LA78041 provides a maximum deflection current of 2.2Ap-p, it is optimal for large size CRTs.

Functions

- Low power operation achieved by using integrated charge pump circuit.
- Vertical output circuit.
- Thermal protection circuit.
- Excellent crossover characteristics.
- Supports DC coupling.

Specifications

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

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		-1.5 to +1.5	Ap-o
Thermal resistance	өј-с		3	°C /W
Operating temperature	Topr		-20 to +85	°C
Storage temperature	Tstg		-40 to +150	°C

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

Parameter	Symbol	Conditions	Ratings	Unit
Recommended supply voltage	+B2		24	V
Operating supply voltage range	+B2op		16 to 33	V
Deflection output current	І5р-р		To 2.2	Ар-р

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

Parameter	Symbol	Conditions	Ratings			l la it
			min	typ	max	Unit
Deflection output saturation voltage (lower)	Vsat5-4	l5 = 1.1A			1.3	V
Deflection output saturation voltage (upper)	Vsat6-5	I5 = -1.1A			3.2	V
Pump-up charge saturation voltage	Vsat3-4	13 = 20mA			1.8	V
Pump-up discharge saturation voltage	Vsat2-3	I3 = -1.1A			3.0	V
Idling current	ldl		20		50	mA
Midpoint voltage	Vmid		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

3286



Block Diagram



Application Circuit Example 1 (Single power supply)







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