

No. 5007

STK792-210

Vertical Deflection Output Circuit for CTV and CRT Displays

Overview

The STK792-210 is a vertical deflection output IC for color television and CRT displays. It incorporates a vertical deflection output amplifier, centering correction and pump-up circuits into a single package.

Applications

Color television, wide-angle vision, HDTV and CRT displays

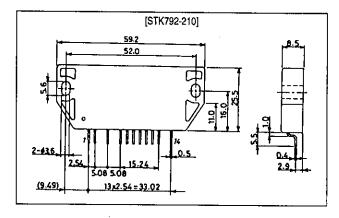
Features

- Vertical centering correction circuit built-in, variable over a wide range, DC controllable
- · Pump-up circuit built-in for low power dissipation
- Supply-independent pump-up circuit to cover different trace times
- High-current, high withstand voltage output amplifier (I_{Op-p} max = 4A at V_{CC} max = 160V)
- DC controllable vertical amplitude
- Quiescent current adjustment for zero crossover distortion in the output amplifier
- Wide supply range for all loads
- Compatible with displays from color television to wideangle vision and HDTV

Package Dimensions

unit: mm

4152



Specifications

Maximum Ratings at Ta = 25°C

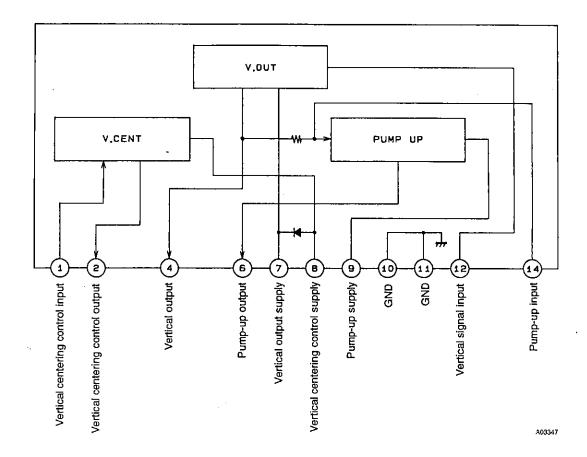
Parameter	Symbol	Conditions	Ratings	Unit
Maximum supply voltage	V _{CC} 7	Pin 7, during pump-up	160	٧
	V _{CC} 8,9	Pins 8 and 9	80	٧
Maximum deflection current	Ι _{ρ-0}	Pin 4 (Tr6, Tr7)	±2.0	A
Maximum output current	l _o	Pin 2 (Tr13, Tr14)	±0.7	A
Thermal resistance	- 0 j-c1	Vertical output stage (Tr6, Tr7)	6.0	°C/W
	0 j-c2	Vertical centering correction (Tr13, Tr14)	20	°C/W
Junction temperature	Тј		150	°C
Operating substrate temperature	Tc		105	°C
Storage temperature	Tstg		-30 to +125	°C

Operating Characteristics at Tc = 25°C

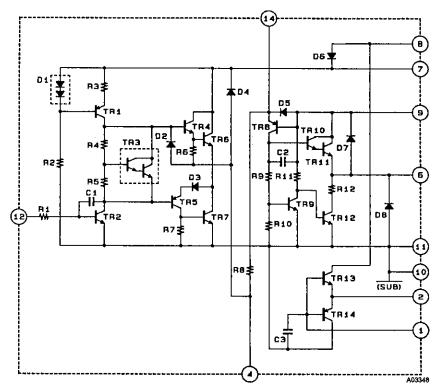
Parameter	Symbol	Conditions	min	typ	max	Unit
Idling current	l _{cco} 7	V7 = V8 = 35V	-	30	_	mA
Neutral voltage	V _N 4	V7 = V8 = 35V	-	21	-	٧
Deflection output saturation voltage (lower)	V _{sat} 4-11	Between pins 4 and 11, V7 = V8 = 35V, I4 = +1.3A	_	_	2.0	٧
Deflection output saturation voltage (upper)	V _{sal} 7-4	Between pins 7 and 4, V7 = V8 = 35V, I4 = -1.3A	_	_	3.2	V
Pump-up charge saturation voltage (1)	V _{sat} 6-11	Between pins 6 and 11, V9 = 35V, I6 = +30mA	-	-	2.0	v
Pump-up charge saturation voltage (2)	V _{sat} 9-6	Between pins 9 and 6, V9 = 35V, I6 = -1.3A	-	-	3.0	ν
Center correction saturation voltage (lower)	V _{sat} 2-11	Between pins 2 and 11, V8 = 35V, I = +0.7A	-	-	2.0	٧
Center correction saturation voltage (upper)	V _{sat} 8-2	Between pins 8 and 2, V8 = 35V, I = -0.7A	_	-	2.0	٧

Note. Measurements are made using a constant-voltage supply.

Block Diagram

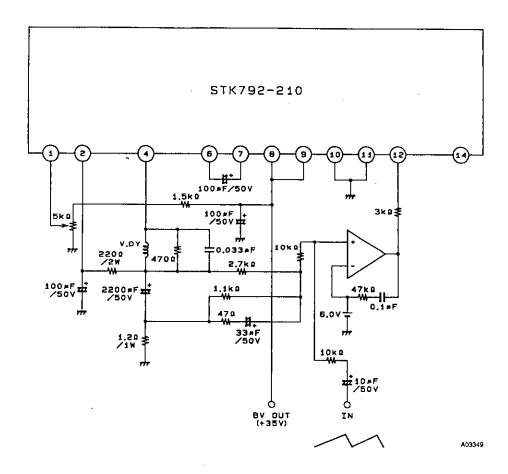


Equivalent Circuit



Pins 3, 5, and 13 have no external terminal.

Sample Application Circuit



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