Thick Film Hybrid IC

STK792-110



Vertical Deflection Output Circuit for CTV and CRT Displays

Overview

The STK792-110 is a vertical output amplifier and supply switching circuit hybrid IC for high withstand voltage, vertical deflection output circuits in CTV and CRT displays.

Applications

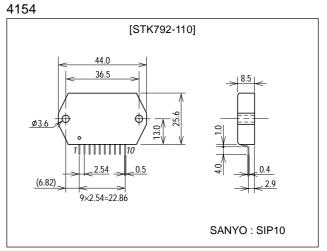
- Large screen, ultrahigh definition CRT displays
- Large screen CTV, HDTV and video projectors

Features

- Vertical deflection basic functions (output amplifier and supply switching circuit) in a compact package
- Split dual supply DC amplifier, output amplifier structure
- Supply switching circuit built-in, making low power dissipatin operation possible
- High-current (4Ap-p), high withstand voltage (160V max) output amplifier design
- Increasing the supply switching circuit supply voltage enables the retrace time to be reduced (≤0.2ms)
- High-power design ideal for large-screen CTV and CRT displays, and video projectors
- DC amplifiers for good DC component characteristics in the sawtooth waveform for vertical centering correction

Package Dimensions

unit:mm



Specifications

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

Parameter	Symbol	Conditions	Ratings	Unit
	V _{CC} 8-4	Between pins 8 and 4	160	V
Maximum supply voltage	±V _{CC}		±30	V
Maximum deflection current	I _{p-o}	Pin 5	±2.0	A
Maximum collector current	IC	TR11	2.0	A
Thermal resistance	Өј-с1	Vertical output transistors Tr8 and Tr9	6.0	°C/W
	θj-c2	Supply switching transistor Tr11	15	°C/W
Junction temperature	Tj		150	°C
Operating substrate temperature	Тс		105	°C
Storage temperature	Tstg		-30 to +125	°C

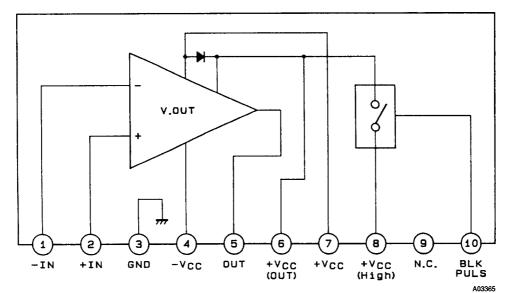
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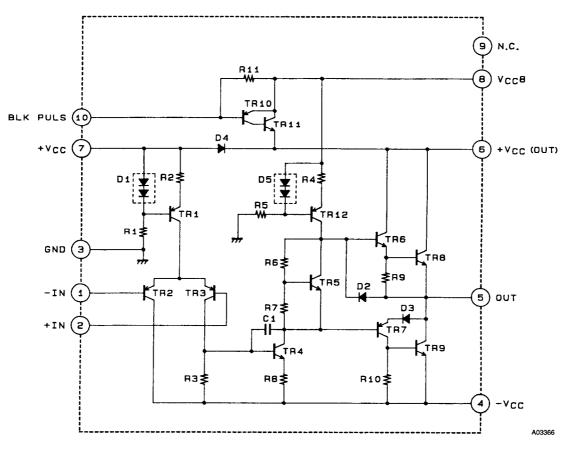
Electrical Characteristics at Ta = 25° C, \pm V_{CC}=20V, V_{CC}8=120V

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	Unit
Idiling current	ICCO7			15	30	mA
Neutral voltage	V _N 5		-50		+50	mV
Deflection output saturation voltage (lower)	V _{sat} 5-4	Between pins 5 and 4, I5=+1.1A		2.2	3.0	V
Deflection output saturation voltage (upper)	V _{sat} 6-5	Between pins 6 and 5, I5=+1.1A		1.0	2.0	V
Supply switching circuit saturation voltage	V _{sat} 8-6	Between pins 8 and 6, I8=+1.1A		1.0	2.0	V

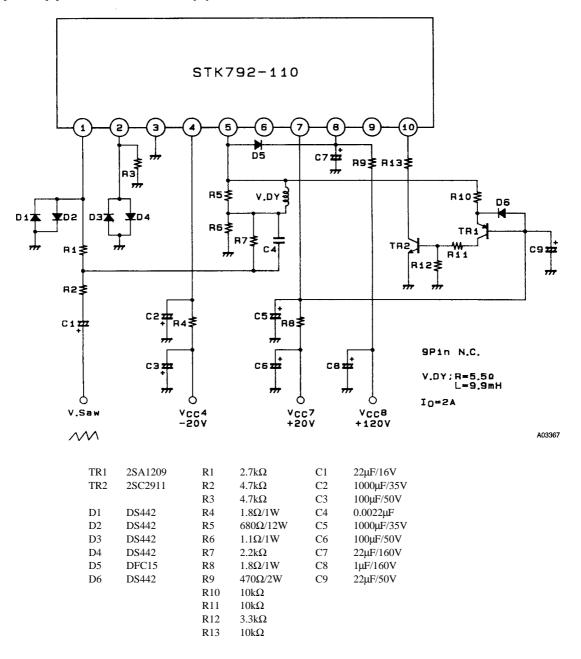
Block Diagram



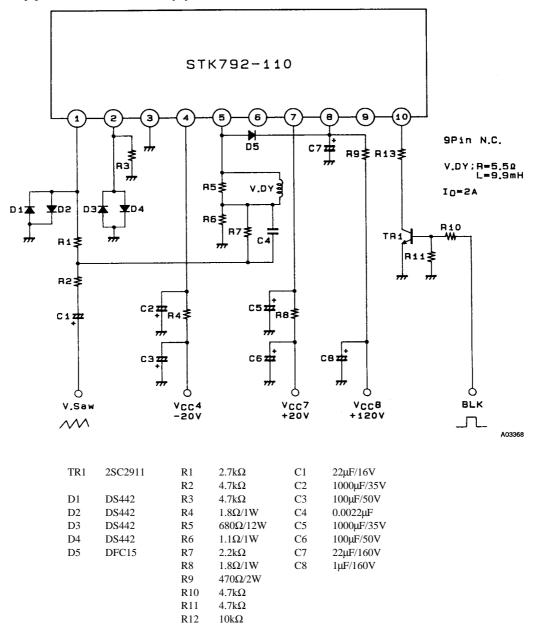
Equivalent Circuit



Sample Application Circuit (1)



Sample Application Circuit (2)



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