



STK397-010

Electromagnetic Focus Output 2-Channel Amplifier (I_C max = 1.5A)

Overview

The STK397-010 is a dynamic focus output amplifier IC developed for the electromagnetic focus in CRT-type projection color TVs. It can be used to drive 3 focus coils connected in series for high withstand voltage designs. Whereas the STK396-010 has a single channel built-in, the STK397-010 has 2 channels built-in and with the addition of a DBF output can drive other correction coils

Applications

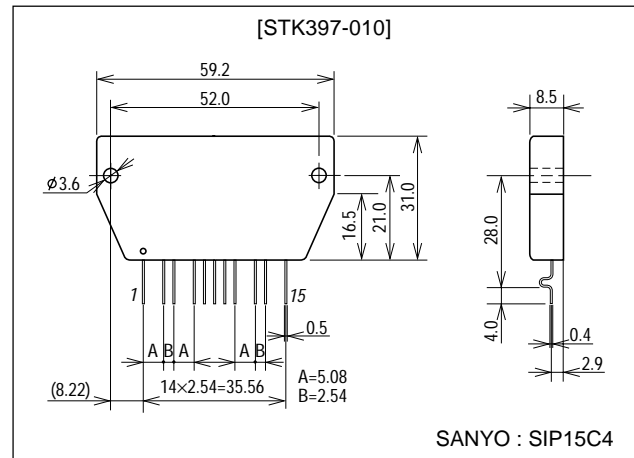
CRT-type color projection TVs

- General models
- High-quality TVs
- Ultrahigh definition projection displays

Package Dimensions

unit:mm

4160



Series Organization

Type No.	Maximum ratings			Electrical characteristics				Note
	V _{CC} max	I _C max	θ _{j-c}	V _{CC}	Load inductance L	I _{op-p} max (sawtooth wave)	Band width (Hz)	
STK396-010	160V	2A	3.0°C/W	115V	1.8mH	0.6A	70 to 100k	1 channel
STK397-010	160V	1.5A	3.0°C/W	115V	1.8mH	0.6A	70 to 100k	2 channels

Specifications

Maximum Ratings at T_a = 25°C

Parameter	Symbol	Conditions	Ratings	Unit
Maximum supply voltage	V _{CC} max		160	V
Maximum collector current	I _C max	Transistors 3, 4, 7, and 8	1.5	A
Thermal resistance	θ _{j-c}	Transistors 3, 4, 7, and 8, per device	3.0	°C/W
Junction temperature	T _j		150	°C
Operating temperature	T _c		125	°C
Storage temperature	T _{stg}		-30 to +125	°C

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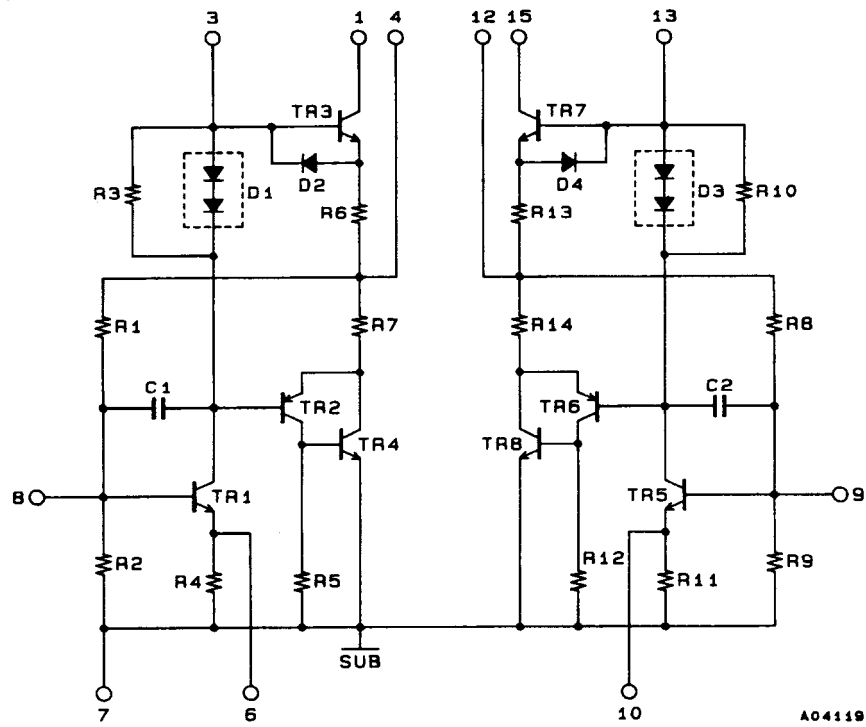
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STK397-010

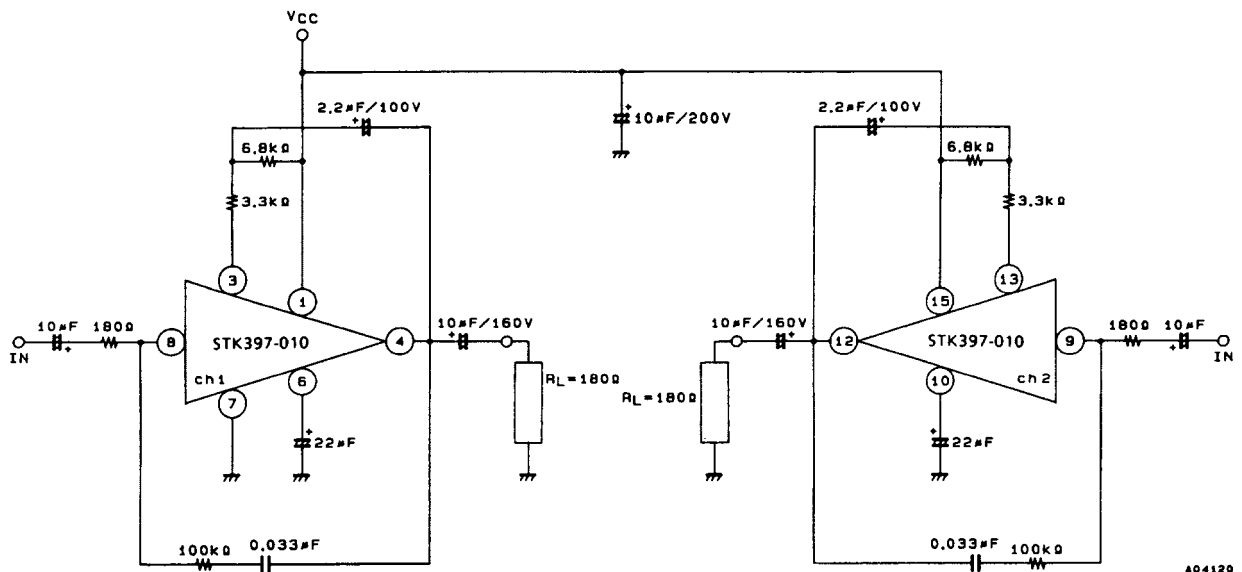
Operating Characteristics at $T_a = 25^\circ\text{C}$, $R_g = 50\Omega$, $V_{CC} = \pm 115\text{V}$

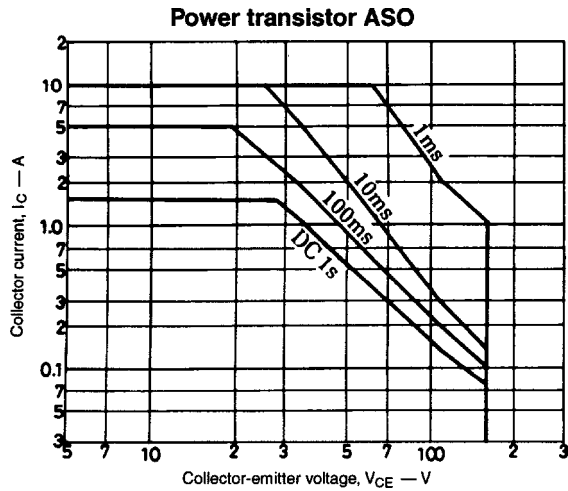
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Output noise voltage	V_{NO}	$R_g = 0\Omega$, each channel			2.0	mVrms
Quiescent current	I_{CCO}			20	50	mA
Neutral voltage	V_N	Each channel	56	58	60	mV
Frequency bandwidth	f_L, f_H	$\pm 6\text{dB}$, each channel		70 to 100k		Hz

Equivalent Circuit



Test Circuit





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