



STK350-020

2-Channel AF Voltage Amplifier (80 to 90W/channel supported)

Overview

The STK350-020 is a voltage amplifier for use in audio power output stages. It comprises a 2-channel amplifier integrated in a small package, making possible audio set miniaturization and design simplification.

Features

- Split power supply for wide bandwidth (f=20Hz to 20kHz).
- Member of a family of devices with power capacities from 40W to 150W.
- Compact package.
- High withstand voltage.

Series Configuration

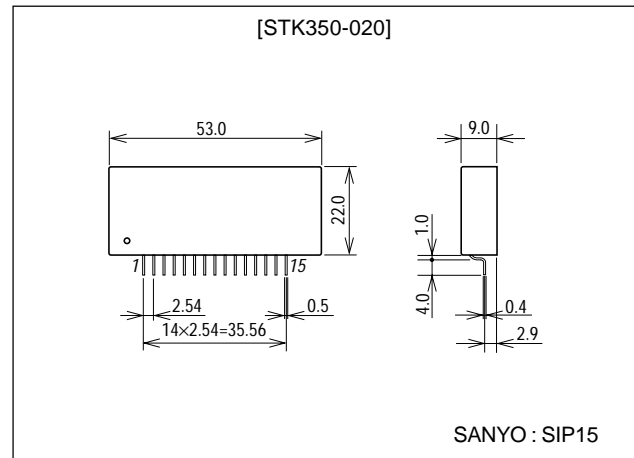
The STK350-020 is a member of a family of devices with differing output capacities.

Type No.	V _{CC} max [V]	V _{CC} [V]	THD [%]	T _c max [°C]	Power [W] (R _L =8Ω)
STK350-000	±55	±36	0.005	115	40 to 60
STK350-010	±59	±41	0.005	115	60 to 80
STK350-020	±65	±47	0.005	115	80 to 90
STK350-030	±75	±50	0.005	115	90 to 100
STK350-040	±80	±55	0.005	115	100 to 120
STK350-050	±90	±60	0.005	115	120 to 150

Package Dimensions

unit:mm

4155



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Specifications

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

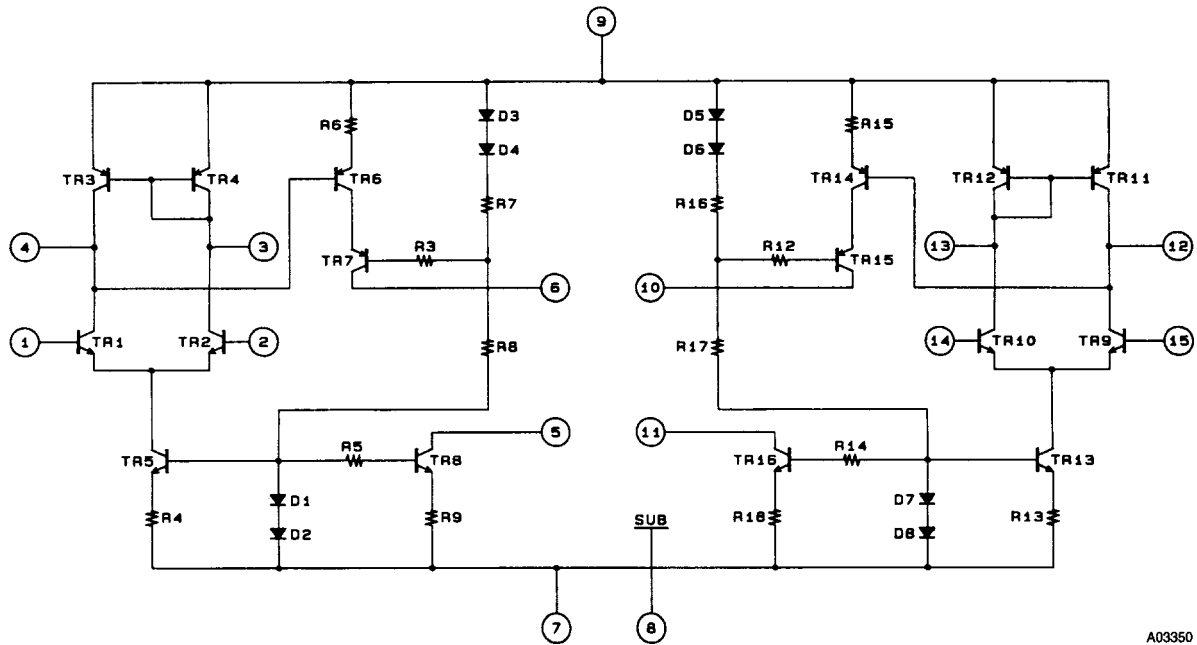
Parameter	Symbol	Conditions	Ratings	Unit
Maximum supply voltage	V_{CC} max		± 65	V
Operating substrate temperature	T_c		115	$^\circ\text{C}$
Storage temperature	T_{stg}		-30 to +115	$^\circ\text{C}$

Operating Characteristics at $T_a = 25^\circ\text{C}$, $V_G=40\text{dB}$, specified test circuit

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Current drain	I_{CC}	$V_{CC}=\pm 56\text{V}$		20	30	mA
Neutral voltage	V_N	$V_{CC}=\pm 56\text{V}$	-70		+70	mV
Output noise voltage	V_{NO}	$V_{CC}=\pm 56\text{V}$, $R_g=10\text{k}\Omega$			1.0	mVrms
Input impedance	r_i	$V_{CC}=\pm 56\text{V}$, $f=1\text{kHz}$, $V_O=2.83\text{V}$		100		$\text{k}\Omega$
Total harmonic distortion	THD	$V_{CC}=\pm 47\text{V}$, $f=20\text{kHz}$, $V_O=25.3\text{V}$			0.005	%

Note. All tests are made using a constant-voltage supply.

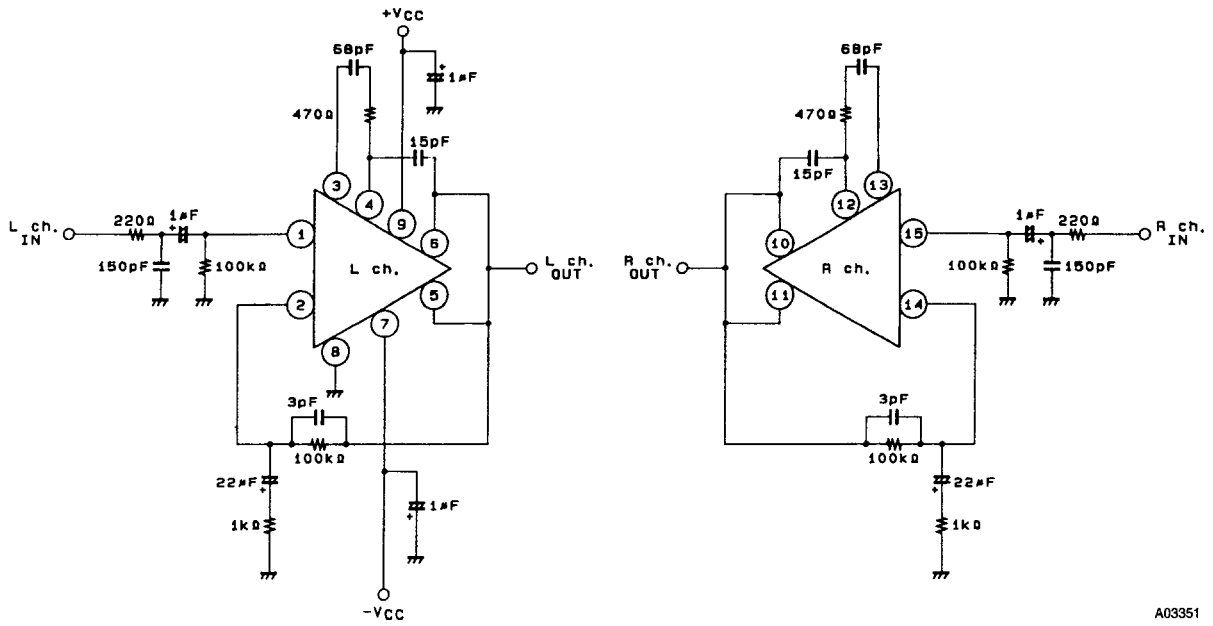
Equivalent Circuit



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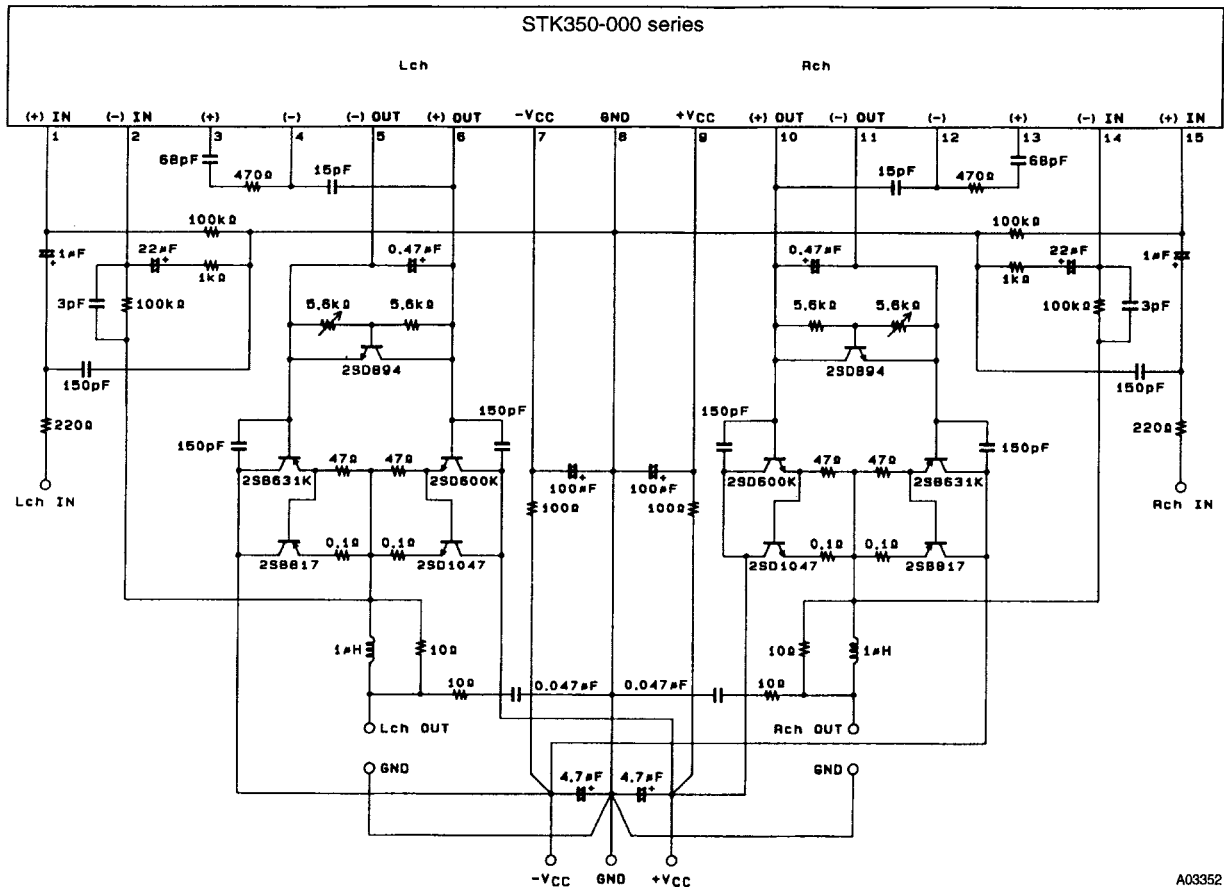
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Test Circuit



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Sample Application Circuit-60W/8Ω Amplifier ($V_{CC}=\pm 41V$)



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