

## Overview

The STK350-040 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 ( $f = 20\text{Hz}$  to  $20\text{kHz}$ )
- Member of a family of devices with power capacities from 40W to 150W
- Compact package
- High withstand voltage

## Series Configuration

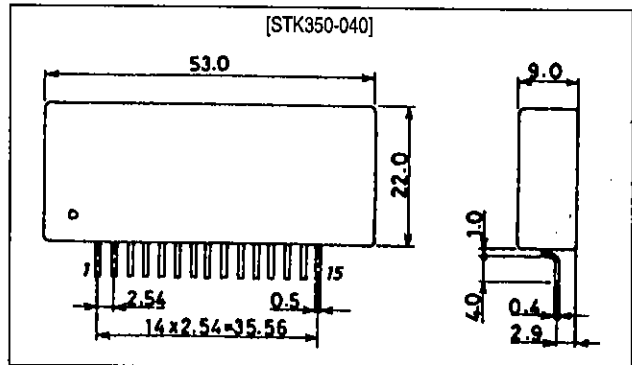
The STK350-040 is a member of a family of devices with differing output capacities.

Type No.	$V_{CC}$ max [V]	$V_{CC}$ [V]	THD [%]	$T_c$ max [°C]	Power [W] ( $R_L = 8\Omega$ )
STK350-000	$\pm 55$	$\pm 36$	0.005	115	40 to 60
STK350-010	$\pm 59$	$\pm 41$	0.005	115	60 to 80
STK350-020	$\pm 65$	$\pm 47$	0.005	115	80 to 90
STK350-030	$\pm 75$	$\pm 50$	0.005	115	90 to 100
STK350-040	$\pm 80$	$\pm 55$	0.005	115	100 to 120
STK350-050	$\pm 90$	$\pm 60$	0.005	115	120 to 150

## Package Dimensions

Unit: mm

4155



## Specifications

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

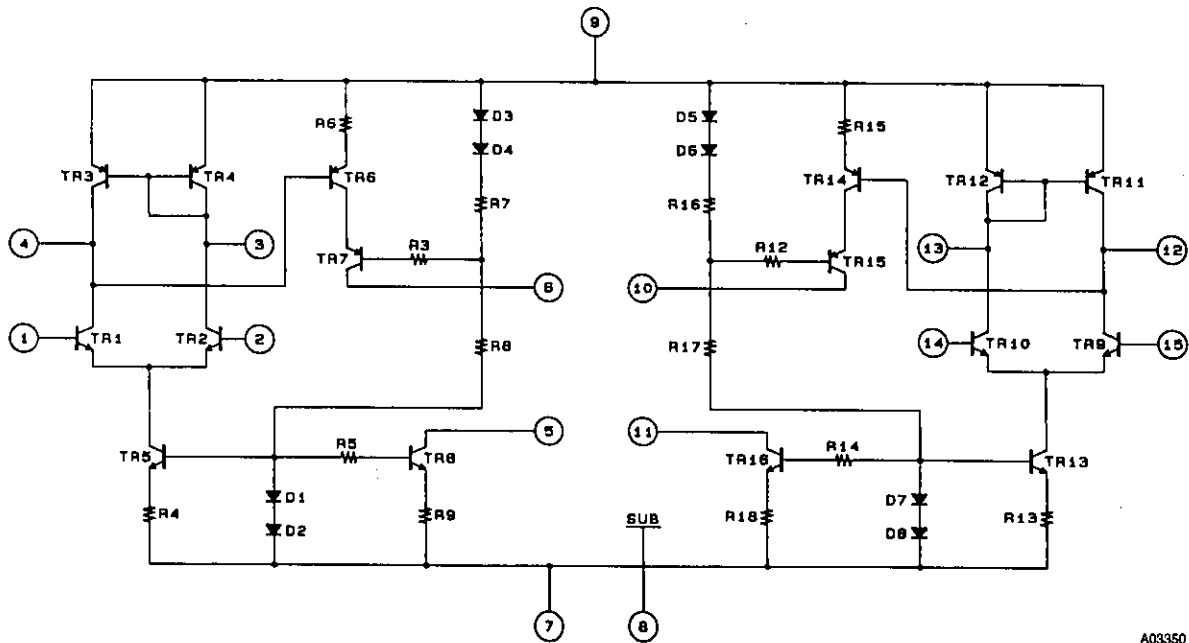
Parameter	Symbol	Conditions	Ratings	Unit
Maximum supply voltage	$V_{CC\text{ max}}$		$\pm 80$	V
Operating substrate temperature	$T_c$		115	$^\circ\text{C}$
Storage temperature	$T_{stg}$		-30 to +115	$^\circ\text{C}$

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

Parameter	Symbol	Conditions	min	typ	max	Unit
Current drain	$I_{CC}$	$V_{CC} = \pm 66\text{V}$	-	20	30	mA
Neutral voltage	$V_N$	$V_{CC} = \pm 66\text{V}$	-70	-	+70	mV
Output noise voltage	$V_{NO}$	$V_{CC} = \pm 66\text{V}$ , $R_g = 10\text{k}\Omega$	-	-	1.0	mVrms
Input impedance	$r_i$	$V_{CC} = \pm 66\text{V}$ , $f = 1\text{kHz}$ , $V_O = 2.83\text{V}$	-	100	-	$\text{k}\Omega$
Total harmonic distortion	THD	$V_{CC} = \pm 55\text{V}$ , $f = 20\text{kHz}$ , $V_O = 31.0\text{V}$	-	-	0.005	%

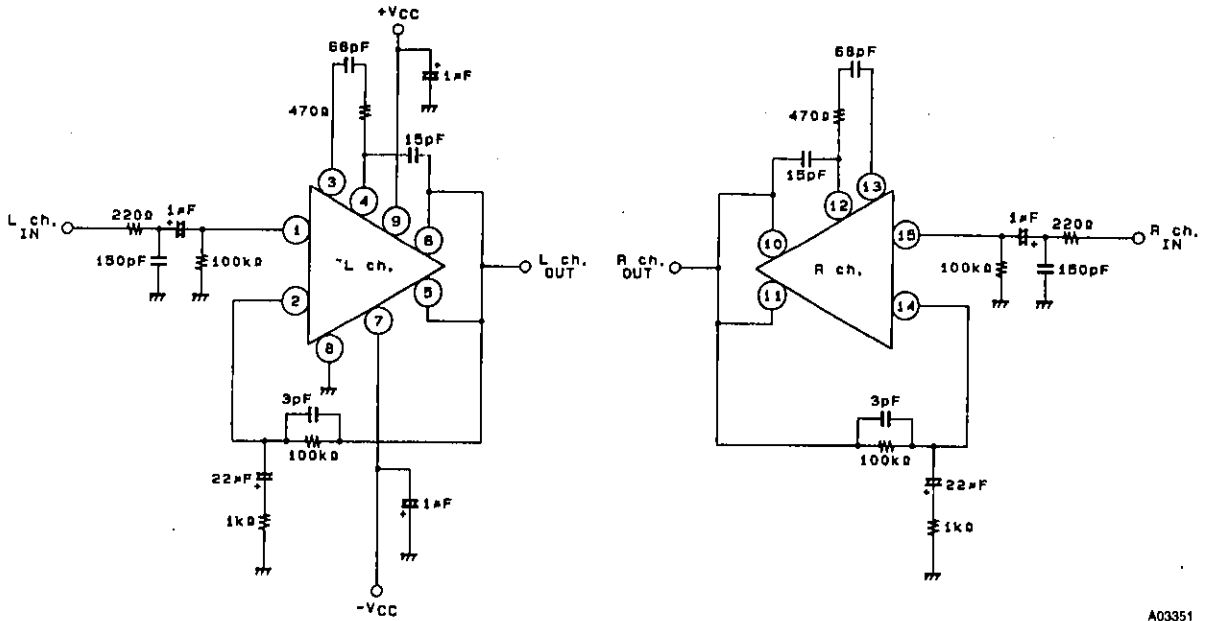
Note. All tests are made using a constant-voltage supply.

## Equivalent Circuit

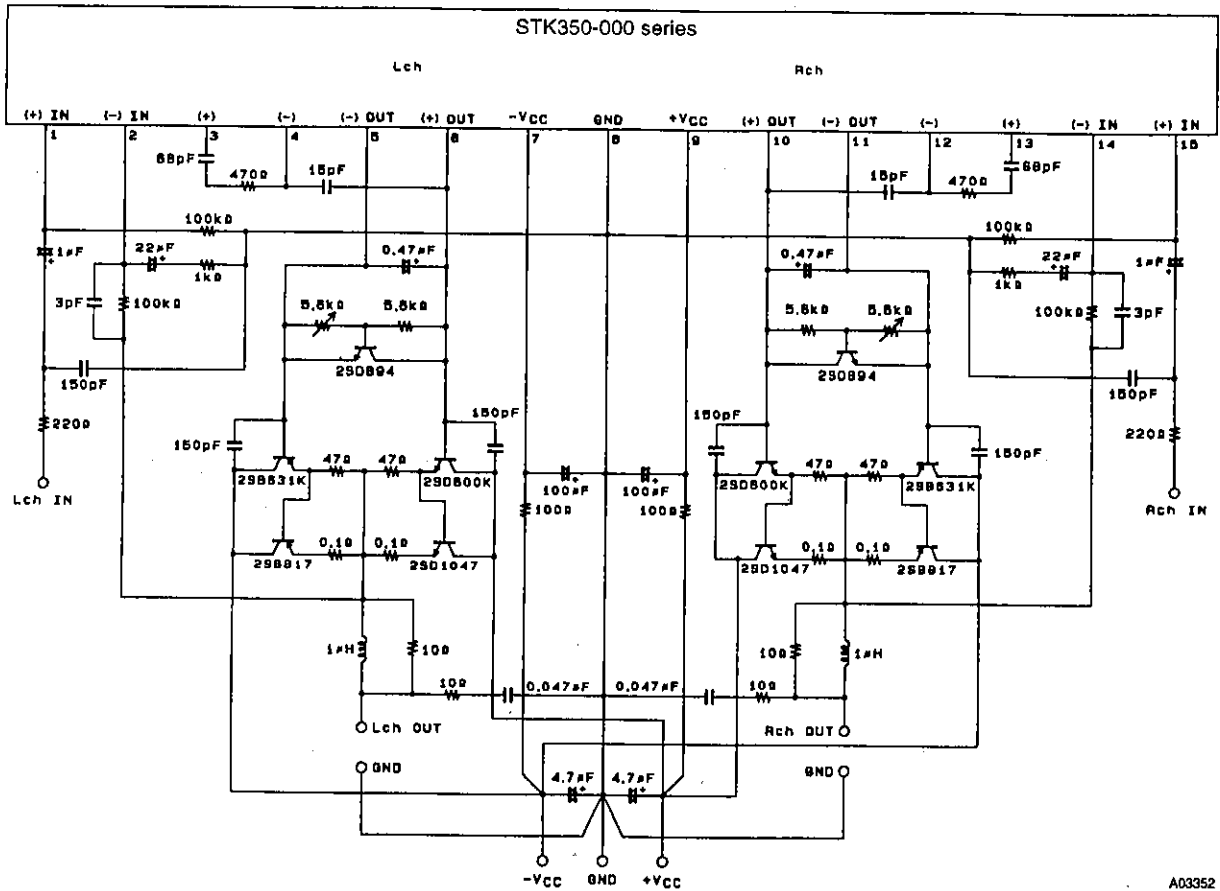


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Test Circuit



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



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