Ordering number: EN 5020

Thick Film Hybrid IC

SANYO

No. 5020

STK350-040

2-channel AF Voltage Amplifier (100 to 120W/channel supported)

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 = 20Hz to 20kHz)
- Member of a family of devices with power capacities from 40W to 150W
- Compact package
- High withstand voltage

Series Configuration

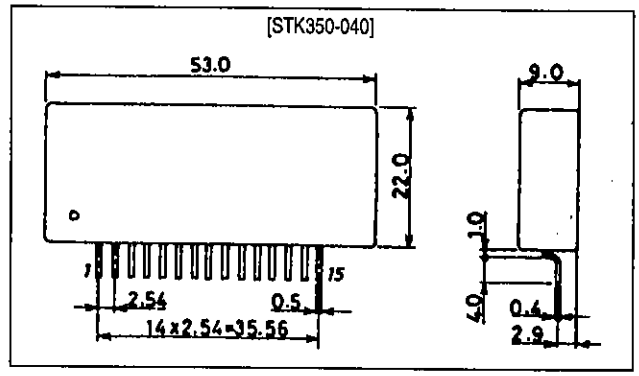
The STK350-040 is a member of a family of devices with differing output capacities.

Type No.	V_{CC} max [V]	V_{CC} [V]	THD [%]	Tc 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



Specifications

Maximum Ratings at Ta = 25°C

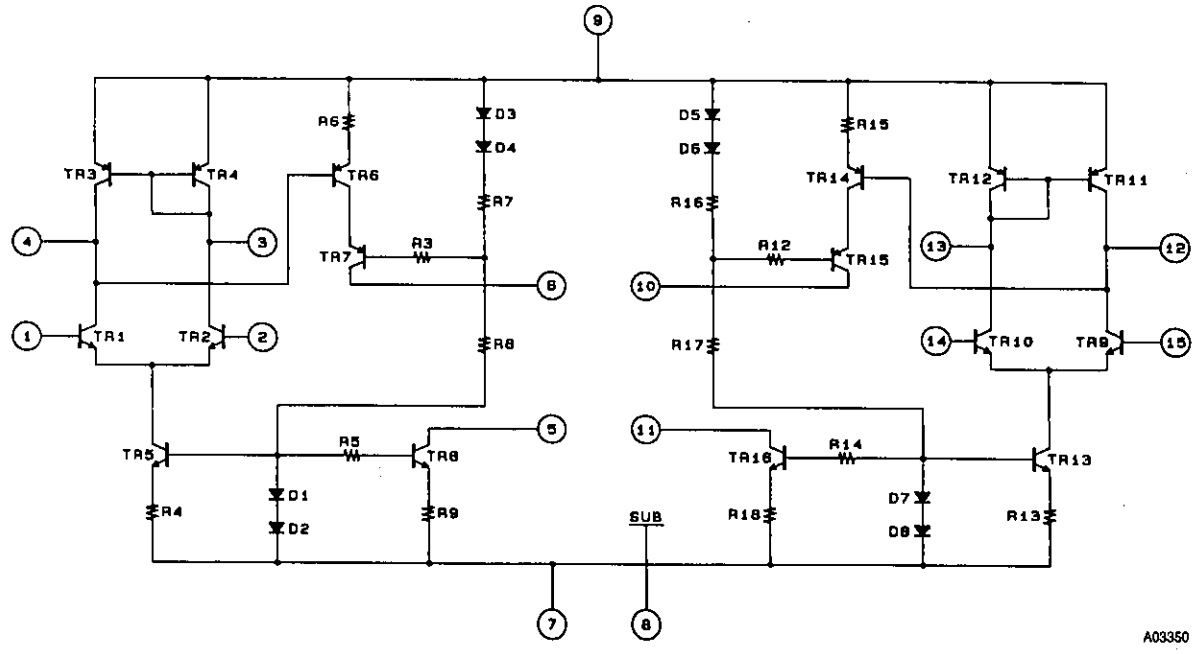
Parameter	Symbol	Conditions	Ratings	Unit
Maximum supply voltage	V_{CC} max		±80	V
Operating substrate temperature	Tc		115	°C
Storage temperature	Tstg		–30 to +115	°C

Operating Characteristics at Ta = 25°C, VG = 40dB, specified test circuit

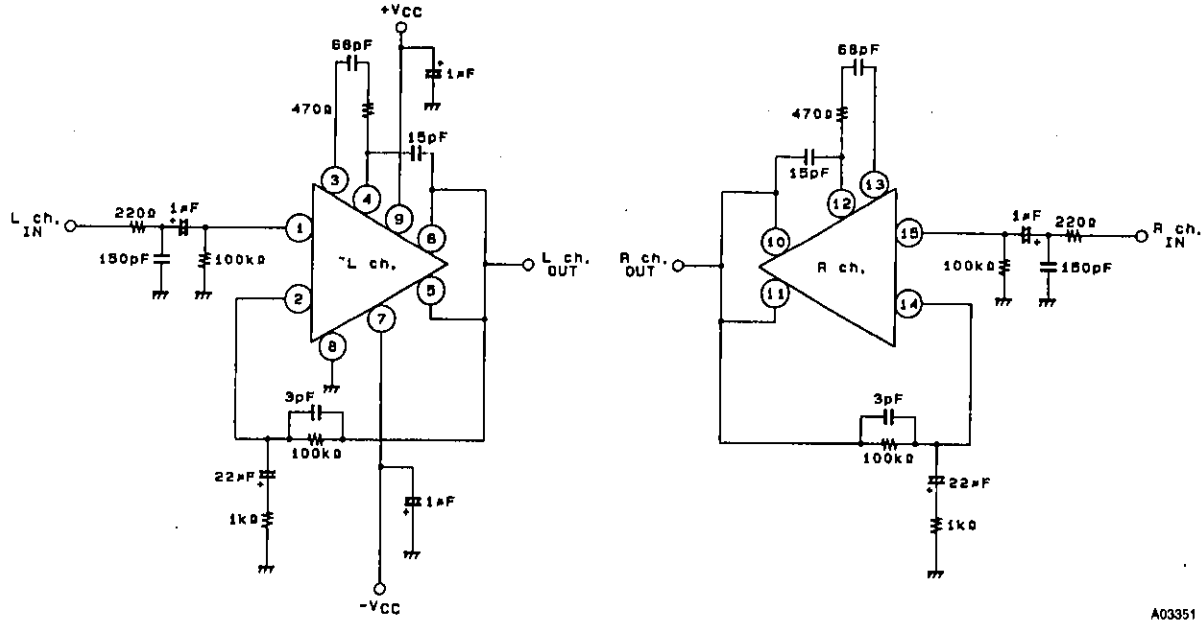
Parameter	Symbol	Conditions	min	typ	max	Unit
Current drain	I_{CC}	V_{CC} = ±66V	–	20	30	mA
Neutral voltage	V_N	V_{CC} = ±66V	–70	–	+70	mV
Output noise voltage	V_{NO}	V_{CC} = ±66V, Rg = 10kΩ	–	–	1.0	mVrms
Input impedance	r_i	V_{CC} = ±66V, f = 1kHz, V_O = 2.83V	–	100	–	kΩ
Total harmonic distortion	THD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

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

Equivalent Circuit



Test Circuit



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