



STK412-090

Two-Channel Shift Power Supply Audio Power Amplifier ICs 50W + 50 W

Overview

The STK412-000 series are class H audio power amplifier hybrid ICs that feature a built-in shift power supply circuit. These ICs provide high efficiency audio power amplification by controlling (switching) the supply voltage supplied to the power transistors according to the detected level of the input audio signal.

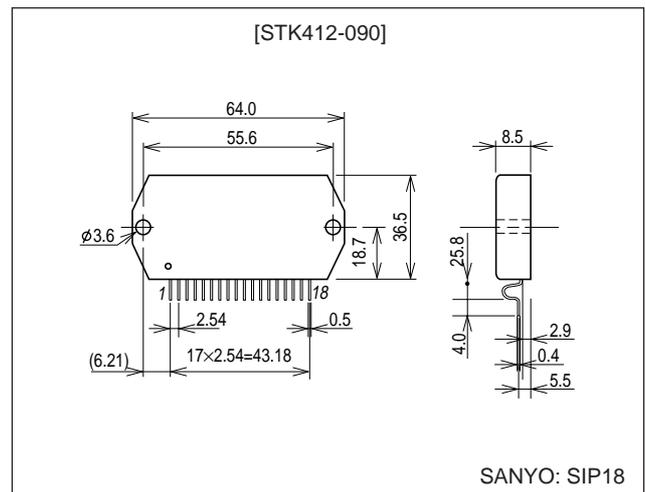
Features

- Pin compatible IC series that covers power ratings from 50 W × 2 channels to 180 W × 2 channels at 0.7 or 0.8% THD, 20 Hz to 20 kHz. This allows the use of a common PCB for all output classes.
- The pin arrangement is also unified with that of the three-channel STK413-000 series. This means that PCBs designed for three-channel models can also be used for two-channel models.
- Miniature package
 - 50 W/ch to 120 W/ch (THD = 0.8%, f = 20 Hz to 20 kHz): 64 × 36.5 × 8.5 mm*
 - 150 W/ch to 180 W/ch (THD = 0.7%, f = 20 Hz to 20 kHz): 78 × 14.0 × 9 mm*
- * Not including the IC pins.
- Allowable load shorted time: 0.3 s

Package Dimensions

unit: mm

4196-SIP18



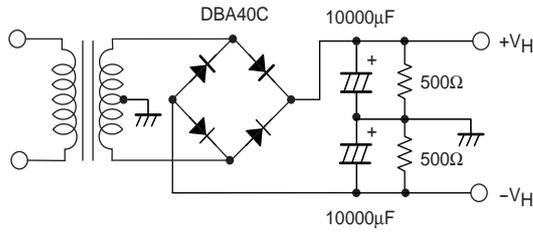
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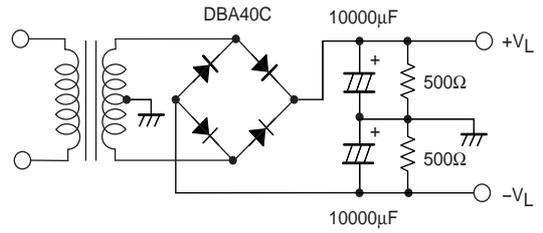
SANYO Electric Co.,Ltd. Semiconductor Company

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- *3. Use the transformer power supply specified in the figure below for allowable load shorted time and output noise voltage measurements.
- *4. Design circuits so that $(|V_H| - |V_L|)$ is always less than 40 V when switching the power supply with the load connected.
- *5. Set up the V_L power supply with an offset voltage at power supply switching ($V_L - L_O$) of about 8 V as an initial target.

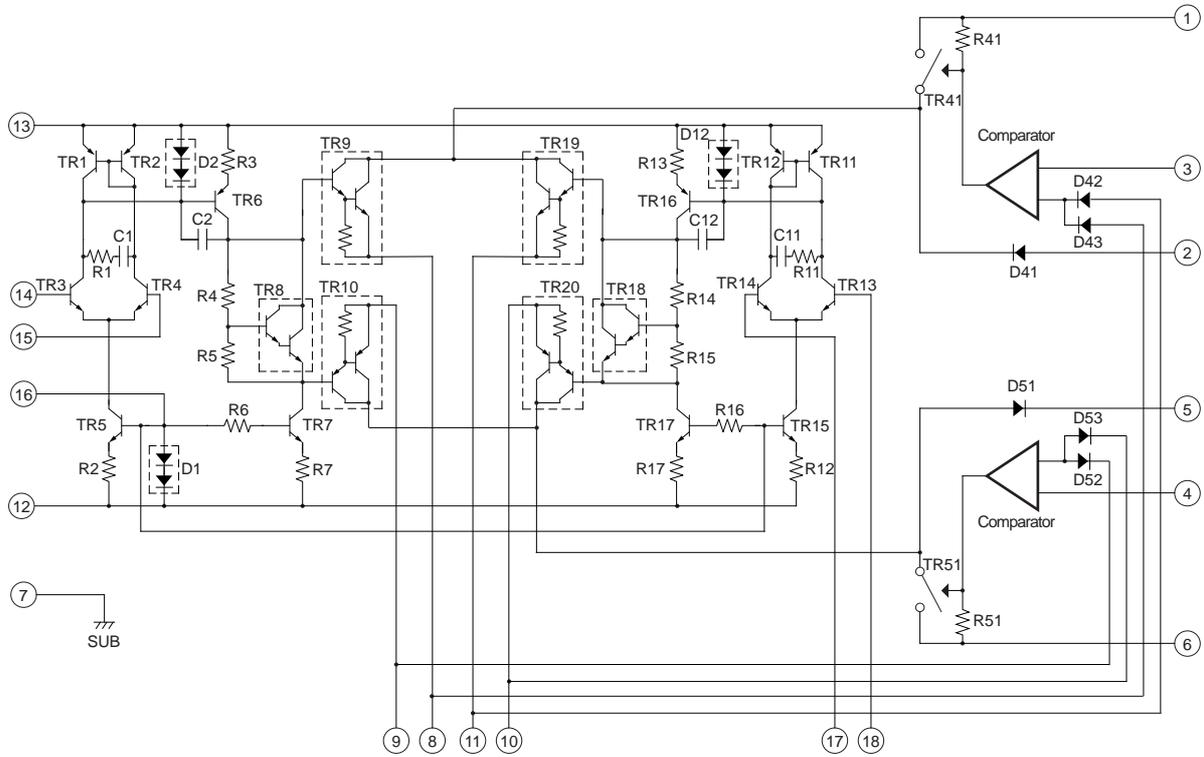


**Specified Transformer Power Supply
(MG-250 equivalent)**

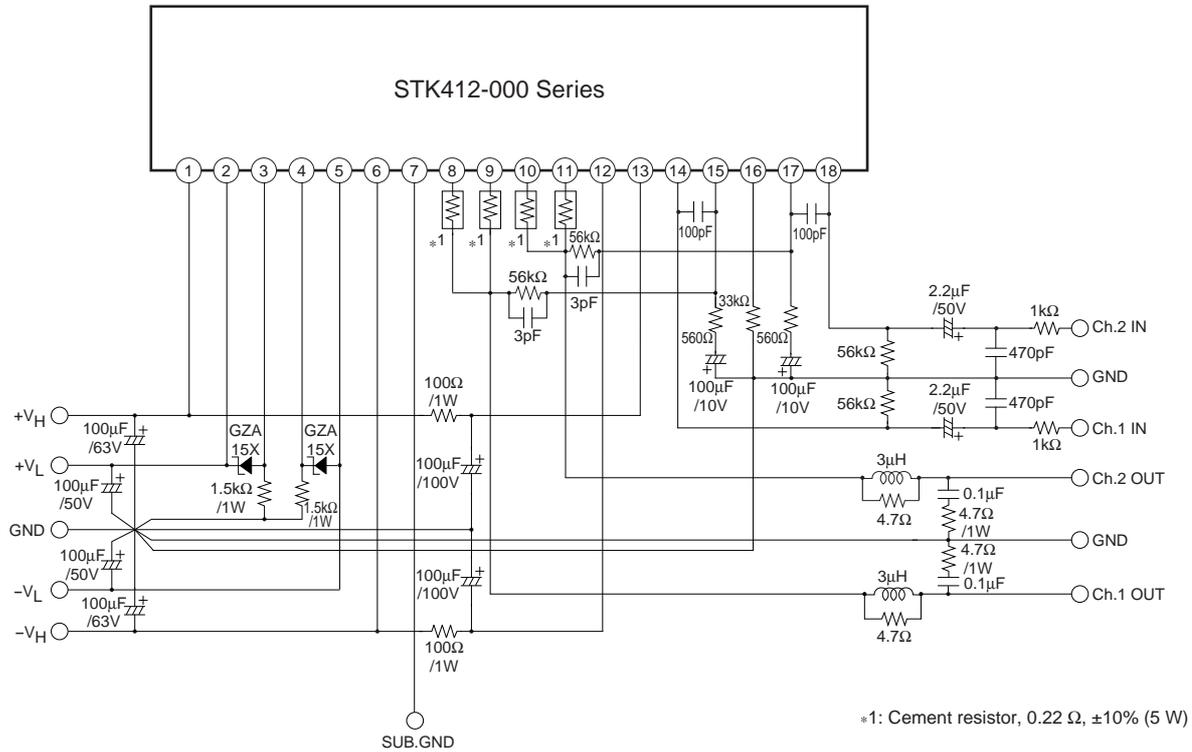


**Specified Transformer Power Supply
(MG-200 equivalent)**

Internal Equivalent Circuit



Sample Application Circuit



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