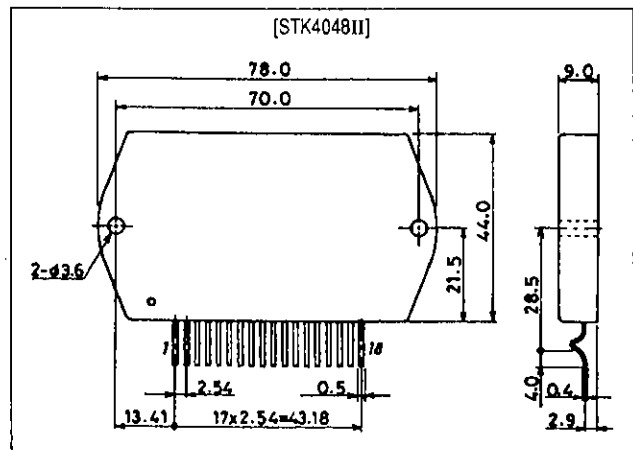


**SANYO****STK4048II****AF Power Amplifier (Split Power Supply)****(150W min, THD = 0.4%)****Features**

- Compact package for thin-type audio sets
- Member of pin-compatible series with outputs of 20 to 200W
- Easy heatsink design to disperse heat generated in thin-type stereo sets
- Constant-current circuit to reduce supply switch-on and switch-off shock noise
- External supply switch-on and switch-off shock noise muting, load short-circuit protection, thermal shutdown and other circuits can be tailored-designed.

**Package Dimensions**

unit: mm

**4051A****Specifications****Maximum Ratings** at  $T_a = 25^\circ\text{C}$ 

| Parameter                       | Symbol               | Conditions | Ratings     | Unit               |
|---------------------------------|----------------------|------------|-------------|--------------------|
| Maximum supply voltage          | $V_{CC \text{ max}}$ |            | $\pm 87$    | V                  |
| Thermal resistance              | $\theta_{j-c}$       |            | 1.2         | $^\circ\text{C/W}$ |
| Junction temperature            | $T_j$                |            | 150         | $^\circ\text{C}$   |
| Operating substrate temperature | $T_c$                |            | 125         | $^\circ\text{C}$   |
| Storage temperature             | $T_{stg}$            |            | -30 to +125 | $^\circ\text{C}$   |

**Recommended Operating Conditions** at  $T_a = 25^\circ\text{C}$ 

| Parameter                  | Symbol   | Conditions | Ratings  | Unit     |
|----------------------------|----------|------------|----------|----------|
| Recommended supply voltage | $V_{CC}$ |            | $\pm 59$ | V        |
| Load resistance            | $R_L$    |            | 8        | $\Omega$ |

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## STK4048II

**Operating Characteristics** at  $T_a = 25^\circ\text{C}$ ,  $V_{CC} = \pm 59\text{V}$ ,  $R_L = 8\Omega$  (noninductive load),  $R_g = 600\Omega$ ,  $V_G = 40\text{dB}$

| Parameter                 | Symbol     | Conditions   | min | typ       | max | Unit       |
|---------------------------|------------|--|-----|-----------|-----|------------|
| Quiescent current         | $I_{CCO}$  | $V_{CC} = \pm 72\text{V}$                            | 15  | -         | 120 | mA         |
| Output power              | $P_O$      | THD = 0.4%, $f = 20\text{Hz}$ to $20\text{kHz}$      | 150 | -         | -   | W          |
| Total harmonic distortion | THD        | $P_O = 1.0\text{W}$ , $f = 1\text{kHz}$              | -   | -         | 0.3 | %          |
| Frequency response        | $f_L, f_H$ | $P_O = 1.0\text{W}$ , $+9_{-3}\text{dB}$             | -   | 20 to 50k | -   | Hz         |
| Input impedance           | $r_i$      | $P_O = 1.0\text{W}$ , $f = 1\text{kHz}$              | -   | 55        | -   | k $\Omega$ |
| Output noise voltage      | $V_{NO}$   | $V_{CC} = \pm 72\text{V}$ , $R_g = 10\text{k}\Omega$ | -   | -         | 1.2 | mVrms      |
| Neutral voltage           | $V_N$      | $V_{CC} = \pm 72\text{V}$                            | -70 | 0         | +70 | mV         |

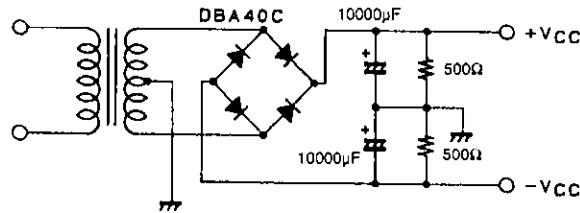
**Notes.**

All tests are measured using a constant-voltage supply unless otherwise specified.

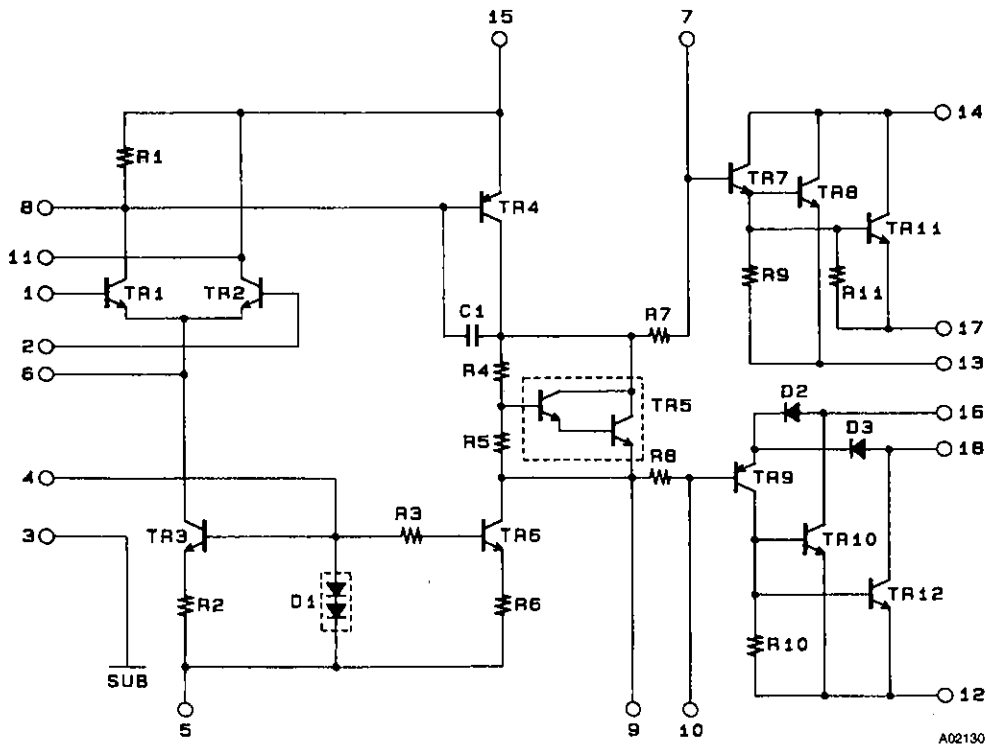
Output noise voltage is measured using the transformer supply specified below.

The output noise voltage is the peak value of an average-reading meter with an rms value scale. The noise voltage waveform does not include any pulse noise.

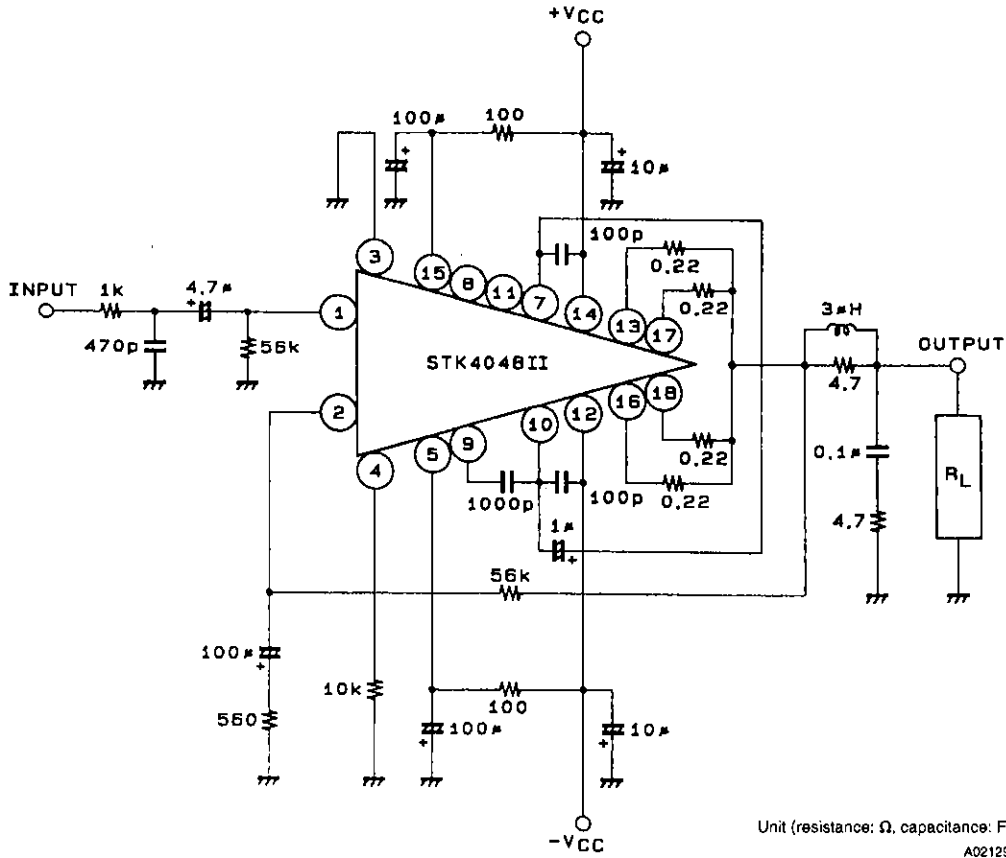
**Specified Transformer Supply (MG-250 or Equivalent)**



**Equivalent Circuit**



Sample Application Circuit (150W min AF Power Amplifier)



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