

# SPECIFICATIONS

No. \_\_\_\_\_

## STK442-090

2000.04.18

1. Case Outline 14Pins (See attached outline drawing)
2. Function class AB 2 channels AF power amplifier
3. Application 50W audio use
4. Maximum Ratings / Ta=25deg

TENTATIVE

| Item                                     | Symbol     | Conditions                                  | Ratings     | Unit  |
|--|------------|---|-------------|-------|
| Power Supply Voltage 1                   | Vcc max(1) | No signal                                   | +54         | V     |
| Power Supply Voltage 2                   | Vcc max(2) | Signal ,RL=8ohm ,6ohm                       | +47         | V     |
| Thermal Resistance                       | Theta j-c  | Per one power TR                            | 2.2         | deg/W |
| Junction Temperature                     | Tj max     |   | 150         | deg   |
| Operating Substrate Temperature          | Tc max     |   | 125         | deg   |
| Storage Temperature                      | Tstg       |   | -30 to +125 | deg   |
| Available Time for Load Short-circuit *4 | ts         | Vcc=+35V,RL=6ohm,f=50Hz<br>Po=50W,1ch drive | 0.3         | s     |

5. Operating Characteristics

Tc=25deg,RL=6ohm(Non-inductive Load),Rg=600ohm,VG=30dB

| Item                         | Symbol | Conditions *2 |           |        |         | Ratings     |           |      | Unit  |    |
|------------------------------|--------|---------------|-----------|--------|---------|-------------|-----------|------|-------|----|
|                              |        | V (V)         | f (Hz)    | Po (W) | THD (%) | MIN.        | TYP.      | MAX. |       |    |
| Output Power *1              | Po1    | +35           | 20 to 20k |        | 0.4     | 50          |           |      | W     |    |
|                              | Po2    | +35           | 1k        |        | 10      |             | 80        |      |       |    |
| THD *1                       | THD    | +35           | 20 to 20k | 50     |         |             | 0.2       |      | %     |    |
| Frequency Characteristics *1 | fl,fH  | +35           |           | 1.0    |         | +0 -3 dB    | 20 to 50k |      | Hz    |    |
| Input Impedance              | ri     | +35           | 1k        | 1.0    |         |             | 55        |      | kohm  |    |
| Output Noise Voltage *3      | Vno    | +42           |           |        |         | Rg=2.2 kohm |           | 1.0  | mVrms |    |
| Quiescent Current            | Icco   | +42           |           |        |         |             |           | 80   | mA    |    |
| Output Neutral Voltage       | VN     | +42           |           |        |         |             | -70       | 0    | +70   | mV |

\*Specifications and information herein are subject to change without notice.

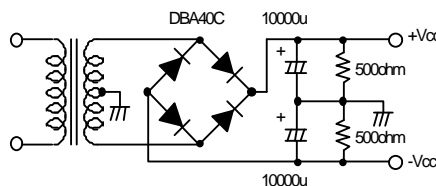
Note \*1.1ch Drive

\*2.All tests are measured using a constant-voltage supply unless otherwise specified.

\*3.The output noise voltage is peak value of an average-reading meter with a rms value scale(VTVM).  
A regulated AC supply(50Hz) should be used to eliminate the effects of AC primary line flicker noise.

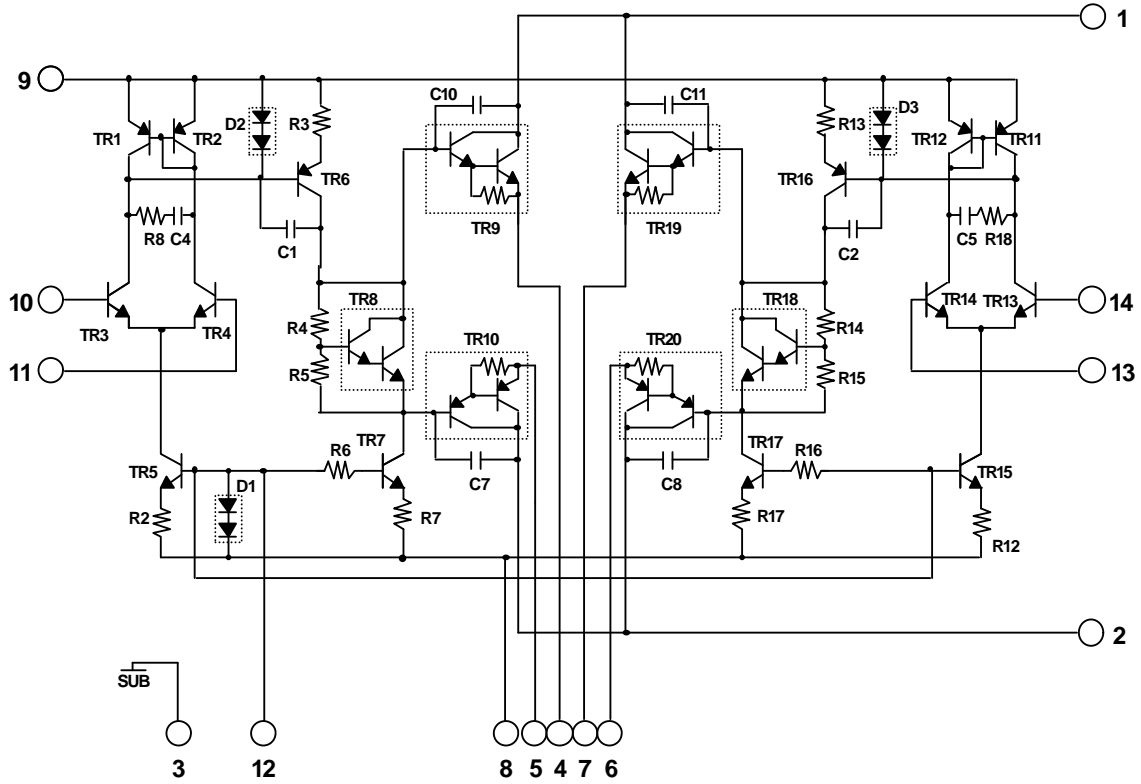
\*4.Available time for load short-circuit and output noise voltage are measured using the specified transformer power supply.

Specified Transformer Power Supply

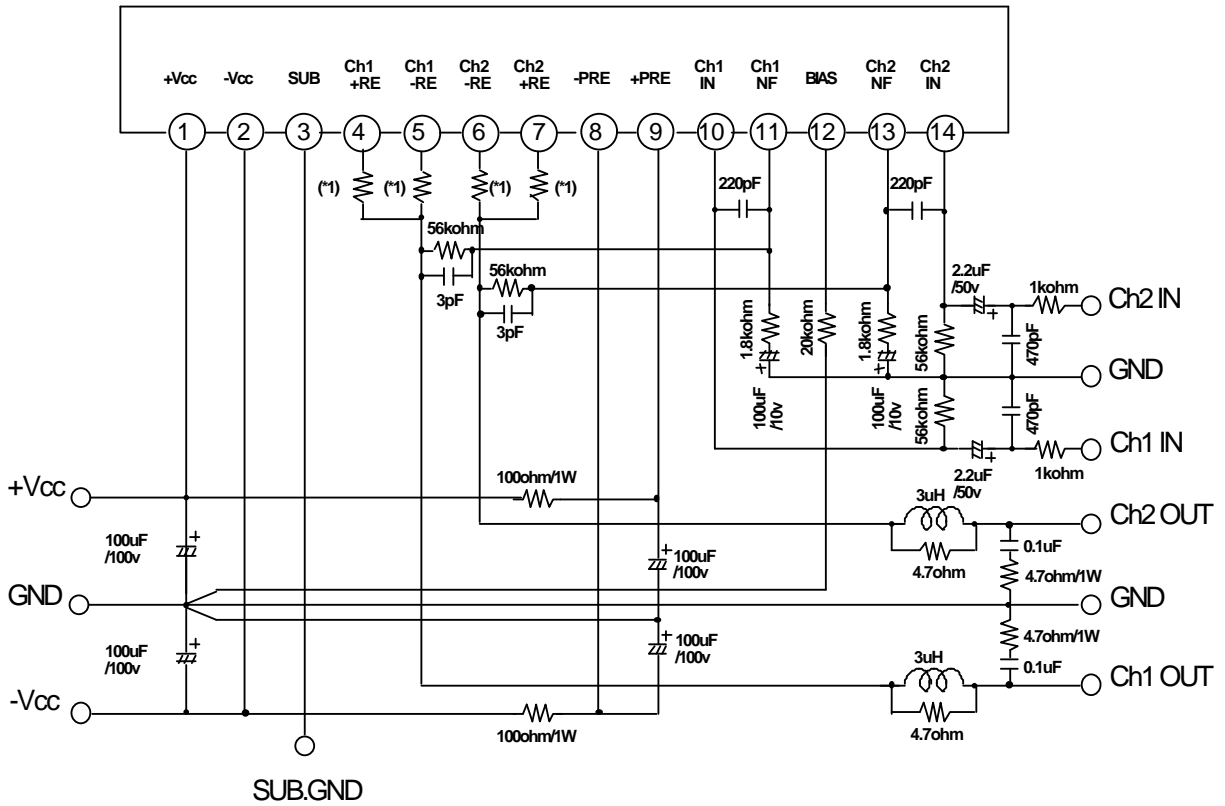


(Equivalent to MG-200)

# Equivalent Block Diagram

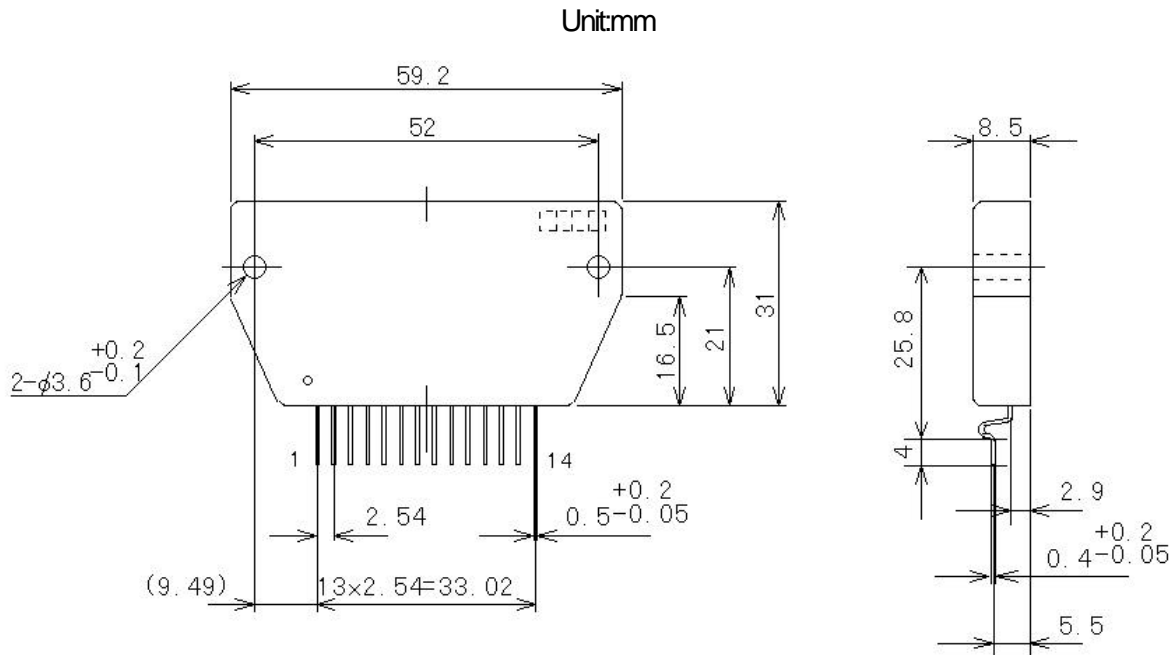


# Test Circuit



(\*1)Metal Plate Cement Resistor 0.22ohm+10%(5W)

## Case Outline



\* No production described or contained herein are intended for use in surgical implants, life-support systems, aerospace equipment, nuclear power control systems, vehicles, disaster/crime-prevention equipment and the like, the failure, of which may directly or indirectly cause injury, death or property loss

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