

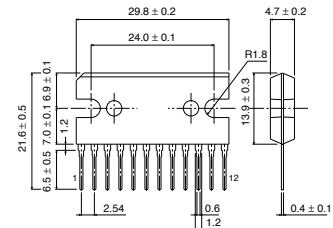
System Regulator for Car Stereo

BA4908

● Description

BA4908 is a system regulator IC for car stereo.
 This IC incorporates 1 channel of 5.6V output,
 2 channels of 8.7V output and 2 channels of
 high side switch.

● Dimension (Unit : mm)



SIP-M12

● Features

- 1) PNP output and low drop out type (Except AMP and ANT)
- 2) Built-in output current limit circuit to protect IC from destruction by short
- 3) Built-in over-voltage protection circuit to deliver strong design for surge input to BACK UP and Vcc
- 4) 12 pin power package perfect for space saving design
- 5) Built-in thermal protection circuit to protect IC from thermal destruction

● Applications

Car stereo

● Absolute Maximum Ratings (Ta=25°C)

| Parameter | Symbol | Limits | Unit |
|-----------------------------|--------|------------|------|
| Power supply voltage | Vcc | 24 | V |
| Power dissipation | Pd | 3000 * | mW |
| Operating temperature range | Topr | -30 ~ +85 | °C |
| Storage temperature range | Tstg | -55 ~ +150 | °C |

*Derating : 27.2mW/°C for operation above Ta=25°C

● Recommended Operating Conditions (Ta=25°C)

| Parameter | Symbol | Min. | Typ. | Max. | Unit |
|----------------------------|--------|------|------|------|------|
| Recommended supply voltage | Vcc | 10 | 13.2 | 16 | V |
| Operating voltage range | Vcc | 6.3 | 13.2 | 24 | V |

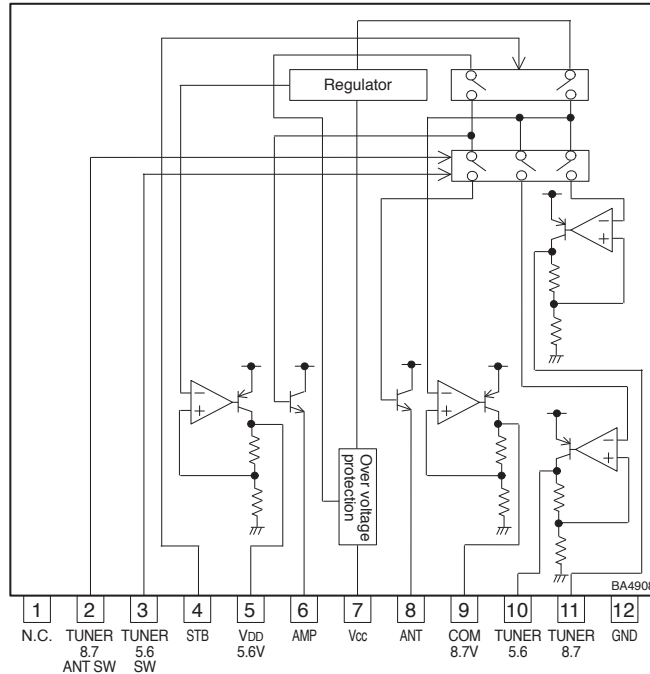
*Electric characteristic is not guaranteed. (Especially at low input voltage)

● Electrical characteristics (Unless otherwise noted: Ta=25°C, Vcc=13.2V)

| Parameter | Symbol | Min. | Typ. | Max. | Unit | Conditions |
|--------------------------------|-------------------|------|------|------|------|------------------------|
| Circuit current at standby | I _{ST} | — | 0.55 | 0.80 | mA | STAN BY pin = 0V |
| Output voltage(VDD)1 | V _{O1} | 5.30 | 5.60 | 5.90 | V | I _{o1} =80mA |
| Minimum I/O voltage difference | ΔV _{O13} | — | 0.3 | 0.7 | V | I _{o1} =80mA |
| Output current capacity | I _{o1} | 100 | 200 | — | mA | V _{O1} ≥5.3V |
| Output voltage(COM)2 | V _{O2} | 8.25 | 8.70 | 9.15 | V | I _{o2} =120mA |
| Minimum I/O voltage difference | ΔV _{O23} | — | 0.4 | 0.7 | V | I _{o2} =120mA |
| Output current capacity | I _{o2} | 150 | 300 | — | mA | V _{O2} ≥8.25V |
| I/O voltage difference(AMP)3 | ΔV _{O31} | — | 1.0 | 1.5 | V | I _{o3} =400mA |
| Output current capacity | I _{o3} | 500 | 900 | — | mA | V _{O3} ≥11.7V |
| I/O voltage difference(ANT)4 | ΔV _{O41} | — | 1.0 | 1.5 | V | I _{o4} =400mA |
| Output current capacity | I _{o4} | 500 | 900 | — | mA | V _{O4} ≥11.7V |
| Output voltage(TUNER5.6)5 | V _{O5} | 5.3 | 5.6 | 5.9 | V | I _{o5} =50mA |
| Minimum I/O voltage difference | ΔV _{O53} | — | 0.4 | 0.7 | V | I _{o5} =120mA |
| Output current capacity | I _{o5} | 150 | 300 | — | mA | V _{O5} ≥5.3V |
| Output voltage(TUNER8.7)6 | V _{O6} | 8.25 | 8.70 | 9.15 | V | I _{o6} =140mA |
| Minimum I/O voltage difference | ΔV _{O63} | — | 0.4 | 0.7 | V | I _{o6} =200mA |
| Output current capacity | I _{o6} | 250 | 500 | — | mA | V _{O6} ≥8.25V |

* This product is not designed for protection against radioactive rays.
 * Output current capacity must be set below MINIMUM of the specification.

● Block Diagram



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