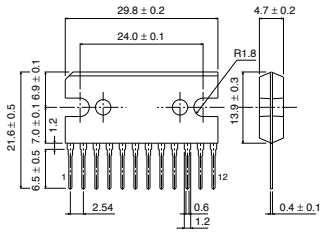
System Regulator for Car Stereo
BA4908

● 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

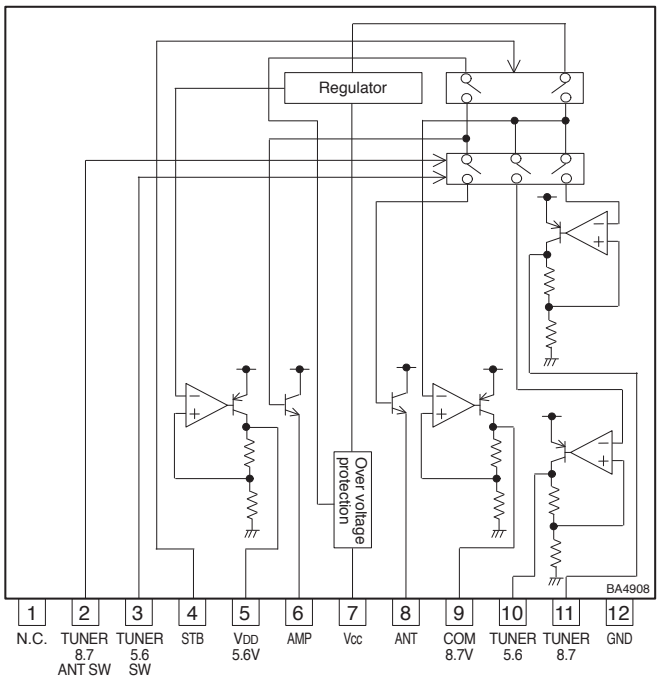
*Electric characteristic is not guaranteed. (Especially at low input voltage)

● 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	$V_{O1} \geqq 5.3V$
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	$V_{O2} \geqq 8.25V$
I/O voltage difference(AMP)3	ΔV_{O31}	–	1.0	1.5	V	I_{O3}=400mA
Output current capacity	I_{O3}	500	900	–	mA	$V_{O3} \geqq 11.7V$
I/O voltage difference(ANT)4	ΔV_{O41}	–	1.0	1.5	V	I_{O4}=400mA
Output current capacity	I_{O4}	500	900	–	mA	$V_{O4} \geqq 11.7V$
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	$V_{O5} \geqq 5.3V$
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	$V_{O6} \geqq 8.25V$

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

● Block Diagram



Notes

- No technical content pages of this document may be reproduced in any form or transmitted by any means without prior permission of ROHM CO.,LTD.
- The contents described herein are subject to change without notice. The specifications for the product described in this document are for reference only. Upon actual use, therefore, please request that specifications to be separately delivered.
- Application circuit diagrams and circuit constants contained herein are shown as examples of standard use and operation. Please pay careful attention to the peripheral conditions when designing circuits and deciding upon circuit constants in the set.
- Any data, including, but not limited to application circuit diagrams information, described herein are intended only as illustrations of such devices and not as the specifications for such devices. ROHM CO.,LTD. disclaims any warranty that any use of such devices shall be free from infringement of any third party's intellectual property rights or other proprietary rights, and further, assumes no liability of whatsoever nature in the event of any such infringement, or arising from or connected with or related to the use of such devices.
- Upon the sale of any such devices, other than for buyer's right to use such devices itself, resell or otherwise dispose of the same, no express or implied right or license to practice or commercially exploit any intellectual property rights or other proprietary rights owned or controlled by
- ROHM CO., LTD. is granted to any such buyer.
- Products listed in this document use silicon as a basic material.
  Products listed in this document are no antiradiation design.

The products listed in this document are designed to be used with ordinary electronic equipment or devices (such as audio visual equipment, office-automation equipment, communications devices, electrical appliances and electronic toys).
Should you intend to use these products with equipment or devices which require an extremely high level of reliability and the malfunction of with would directly endanger human life (such as medical instruments, transportation equipment, aerospace machinery, nuclear-reactor controllers, fuel controllers and other safety devices), please be sure to consult with our sales representative in advance.

About Export Control Order in Japan

Products described herein are the objects of controlled goods in Annex 1 (Item 16) of Export Trade Control Order in Japan.
In case of export from Japan, please confirm if it applies to "objective" criteria or an "informed" (by MITI clause) on the basis of "catch all controls for Non-Proliferation of Weapons of Mass Destruction.