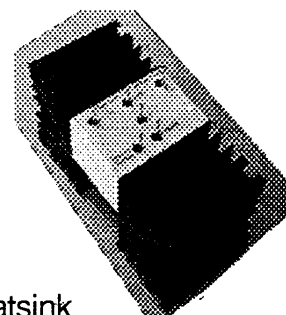


BMA ELECTRONICS



BMA10L DATASHEET 100 WATT POWER AMPLIFIER

The BMA10L Power Amplifier module is an encapsulated and electronically protected power amplifier module with integral heatsink and five electrical connections.

The circuit uses components of the highest quality and is assembled using predominantly SMT (Surface Mount Technology) components. The innovative design results in a very rugged module that also exhibits excellent sonic qualities.

FEATURES

- ◆ 4 OR 8 OHMS
- ◆ WIDE FREQUENCY RESPONSE
- ◆ INTEGRAL HEATSINK (CONVECTION COOLING)
- ◆ SHORT CIRCUIT OVERLOAD PROTECTION
- ◆ THERMAL OVERLOAD PROTECTION
- ◆ PSU AVAILABLE SEPERATELY
- ◆ SIZE W 110mm, H 50 mm, D 55 mm

SPECIFICATIONS

PARAMETER	VALUE
OUTPUT POWER (4 OHMS)	100 WATTS RMS
FREQUENCY RESPONSE (-3db)	5 Hz – 50 KHz
THD @ 1KHz	0.025%
S/N RATIO	95dB
SLEW RATE	15V/microsecond
INPUT SENSITIVITY	500 mV RMS
DAMPING FACTOR	>200
SUPPLY VOLTAGE	+/- 40 VOLTS

BMA

AMPLIFICATION

Application Notes: BMA10L Module

We recommend the use of the BMA25 S power supply.

For 8 ohm operation one power supply will supply two BMA10L modules.

For 4 ohms operation one power supply per BMA10L module is required.

Wiring between the power supply and the BMA10L module should be as short as possible, if connections exceed 150mm then 2 extra electrolytic capacitors are required to “locally decouple” the BMA10L module – see diagram 1.

The amplifier should be installed horizontally (Fins vertical) to allow cooling air to circulate through the fins, good air flow is **very important** – particularly when using the amplifier with 4 ohm loads.

If the module is cooled with a fan, inside a piece of equipment, make sure warm exhaust air can exit the enclosure without being recirculated internally.

Temperature overload protection is provided within the module, this is **NOT** resetting, it operates at approximately 100°C heatsink temperature. A suitable replacement thermal Fuse is available (FEC part type 262-511) and should be soldered across the two “thermal trip” pins on the module and the sensor element positioned on the heatsink nearby.

To test the amplifiers functionality, if everything else seems to be in order, after a suspected thermal overload temporarily link the thermal trip pins together and check correct operation.

DO-NOT operate the amplifier with the “thermal trip” pins shorted, a thermal overload would then cause amplifier failure.

The amplifier is protected electronically against SHORT TERM overloads at the output, do not operate the amplifier if you suspect a faulty load.

Prolonged overload will cause the thermal trip to operate and could cause permanent module damage. Certain reactive loads, either very capacitive or very inductive can cause instability and/or over dissipation – always check the running temperature of the module. If the heatsink temperature exceeds 85°C use a cooling fan.

If you do not use a BMA25 S power supply be careful not to let the OFF LOAD voltage exceed +/- 45 volts. If a regulated power supply is used be sure not to let it exceed +/- 36 volts.

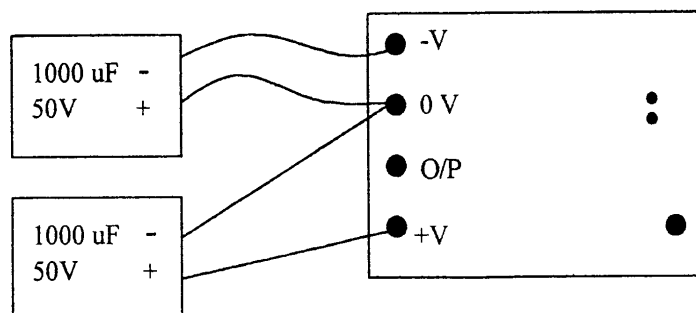


DIAGRAM 1



Application Notes: BMA10L Module

We recommend the use of the BMA25 S power supply.

For 8 ohm operation one power supply will supply two BMA10L modules.

For 4 ohms operation one power supply per BMA10L module is required.

Wiring between the power supply and the BMA10L module should be as short as possible, if connections exceed 150mm then 2 extra electrolytic capacitors are required to “locally decouple” the BMA10L module – see diagram 1.

The amplifier should be installed horizontally (Fins vertical) to allow cooling air to circulate through the fins, good air flow is **very important** – particularly when using the amplifier with 4 ohm loads.

If the module is cooled with a fan, inside a piece of equipment, make sure warm exhaust air can exit the enclosure without being recirculated internally.

Temperature overload protection is provided within the module, this is **NOT** resetting, it operates at approximately 100°C heatsink temperature. A suitable replacement thermal Fuse is available (FEC part type 262-511) and should be soldered across the two “thermal trip” pins on the module and the sensor element positioned on the heatsink nearby.

To test the amplifiers functionality, if everything else seems to be in order, after a suspected thermal overload temporarily link the thermal trip pins together and check correct operation.

DO-NOT operate the amplifier with the “thermal trip” pins shorted, a thermal overload would then cause amplifier failure.

The amplifier is protected electronically against SHORT TERM overloads at the output, do not operate the amplifier if you suspect a faulty load.

Prolonged overload will cause the thermal trip to operate and could cause permanent module damage. Certain reactive loads, either very capacitive or very inductive can cause instability and/or over dissipation – always check the running temperature of the module. If the heatsink temperature exceeds 85°C use a cooling fan.

If you do not use a BMA25 S power supply be careful not to let the OFF LOAD voltage exceed +/- 45 volts. If a regulated power supply is used be sure not to let it exceed +/- 36 volts.

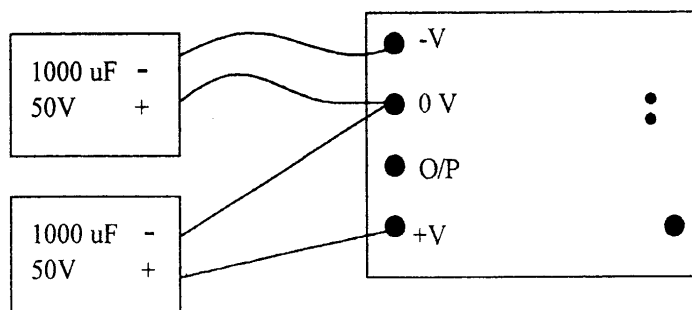
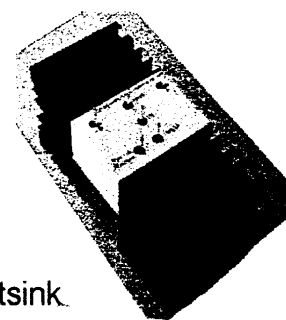


DIAGRAM 1



BMA ELECTRONICS

BMA10L DATASHEET 100 WATT POWER AMPLIFIER



The BMA10L Power Amplifier module is an encapsulated and electronically protected power amplifier module with integral heatsink and five electrical connections.

The circuit uses components of the highest quality and is assembled using predominantly SMT (Surface Mount Technology) components. The innovative design results in a very rugged module that also exhibits excellent sonic qualities.

FEATURES

- ◆ 4 OR 8 OHMS
- ◆ WIDE FREQUENCY RESPONSE
- ◆ INTEGRAL HEATSINK (CONVECTION COOLING)
- ◆ SHORT CIRCUIT OVERLOAD PROTECTION
- ◆ THERMAL OVERLOAD PROTECTION
- ◆ PSU AVAILABLE SEPERATELY
- ◆ SIZE W 110mm, H 50 mm, D 55 mm

SPECIFICATIONS

PARAMETER	VALUE
OUTPUT POWER (4 OHMS)	100 WATTS RMS
FREQUENCY RESPONSE (-3db)	5 Hz – 50 KHz
THD @ 1KHz	0.025%
S/N RATIO	95dB
SLEW RATE	15V/microsecond
INPUT SENSITIVITY	500 mV RMS

DAMPING FACTOR	>200
SUPPLY VOLTAGE	+/- 40 VOLTS

Prism Audio Limited - Wharfebank Business Centre - Ilkley Road - Otley
W. Yorkshire - LS21 3JP - UK. Tel:- +44(0)1943 850710 - Fax:- +44(0)1943 468335

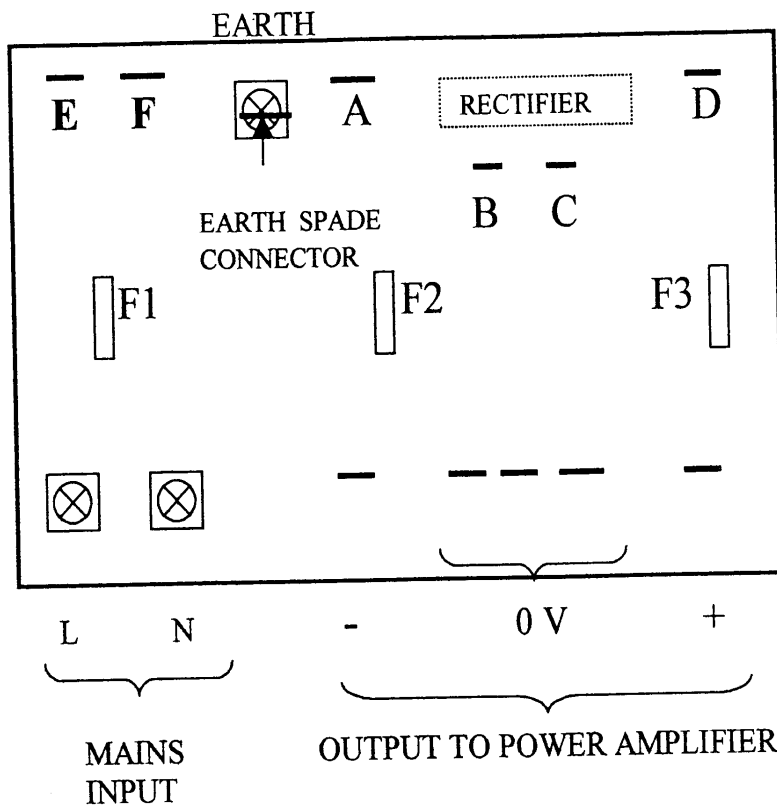
BMA

AMPLIFICATION

BMA25S Application Note

OUTPUT TO
TRANSFORMER

TYPE	<u>FUSES</u> (Quick blow)		
	F1	F2	F3
BMA25S	2.5A	4.0A	4.0A



TERMINAL CONNECTIONS *

Conventional (100 Watt)

A	0V	} Secondary Winding 1
B	30V	
C	0V	} Secondary Winding 2
D	30V	
E	Primary 0V (Winding 1)	
F	Primary 120V (Winding 2)	

The transformers are wound to enable 120V operation, link the 120V and 0V connections on the conventional transformer.

These power supplies should always be installed in a suitable earthed metal enclosure.

Prism Audio

The full spectrum of sound



Indigo High Power In Car Amplifier. PROVISIONAL SPECS

The Prism Indigo is a two channel amplifier delivering a true output of 200 watts RMS per channel into 2 ohms and if used in bridge mode it will deliver in excess of 700 watts RMS into 2 ohms . The Indigo is also 1 ohm stable when used in 2 channel mode.

The indigo also features a switchable and continuously variable sub crossover variable between 60 and 150 Hz.

Outputs are also provided for mid range and treble crossed over at 250Hz and 5KHz respectivley and with independent level adjusters. This allows the Indigo to operate as the heart of a high power system without the need for external crossovers.

The amplifiers and power supply all use the latest MOSFET power transistors for the best possible reliability and an amazingly dynamic high energy sound.

The Indigo also features variable speed force cooling which allows the amlifier to run at sustained very high output levels for long periods of time . As well as excellent cooling the amlifier is also well protected against short circuits and overheating as well as protecting the speakers in the event of an internal fault .

The Indigo is constructed from aluminium which is painted with a very strong powder coat epoxy resulting in a very strong and durable product.

spec's.....

Output power(rms)per channel

200w(2ohms)

120w(4ohms)

Bridge output(rms)