DATA SHEET

Part No.	AN17020B
Package Code No.	SSOP016-P-0225E

Contents

AN17020B

Headphone amplifier IC

■ Features

- HP/line control function, mute function

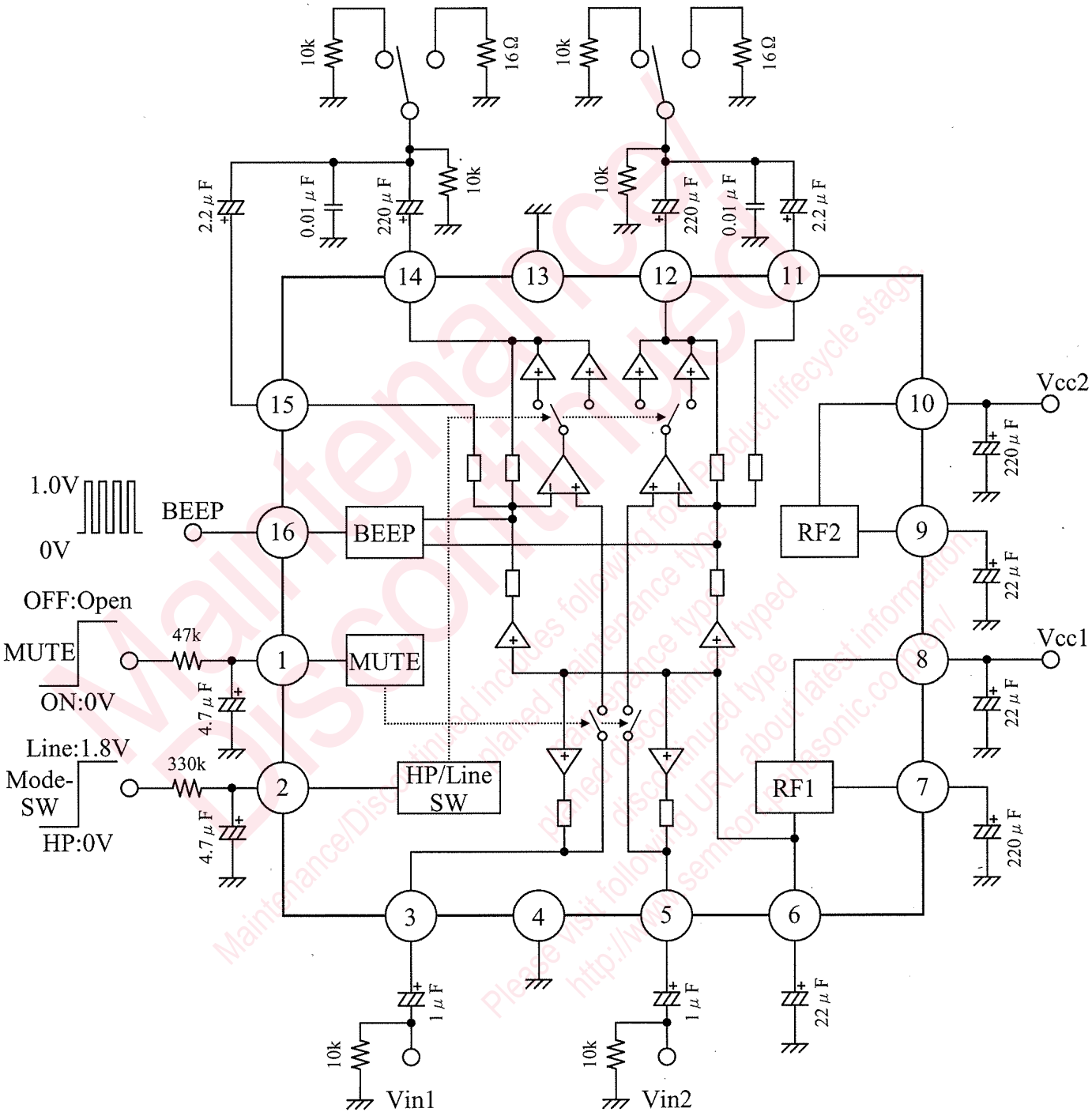
■ Application

- Low frequency amplifier

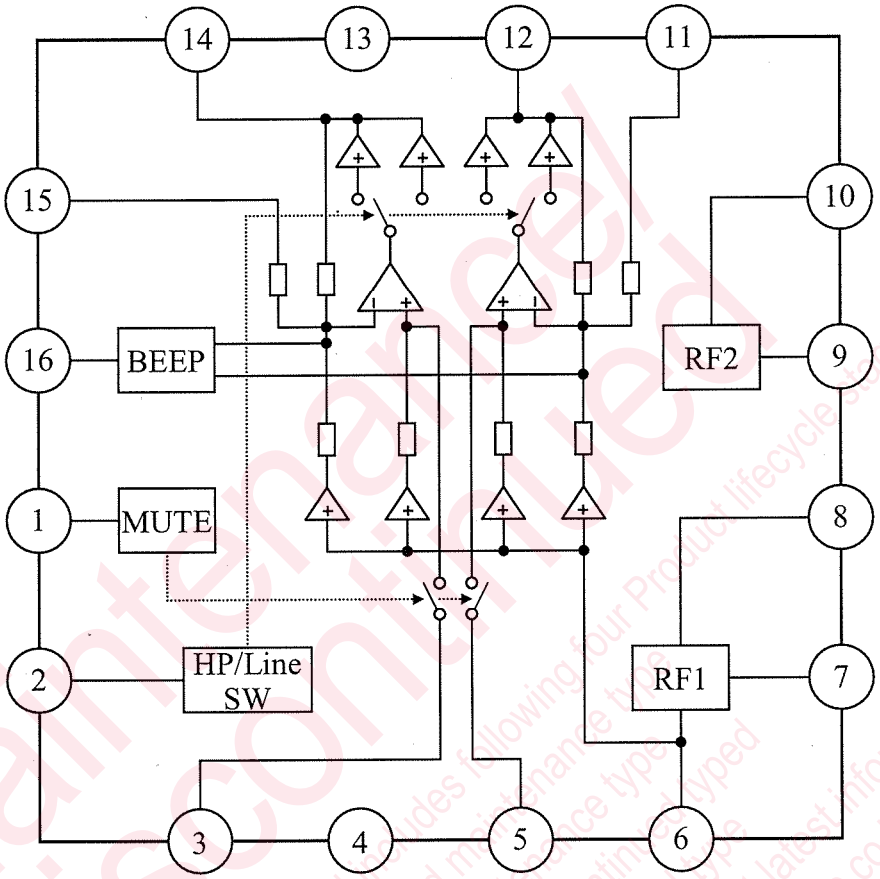
■ Package

- DIL-16 pin plastic package (SO type)

■ Application Circuit Example



■ Block Diagram



■ Pin Descriptions

Pin No.	Description	Pin No.	Description
1	Muting control	9	Half V_{CC2} reference voltage
2	HP/line control	10	V_{CC2}
3	Ch.1 input	11	Ch.2 sense output
4	GND (input)	12	Ch.2 power output
5	Ch.2 input	13	GND (output)
6	Half V_{CC1} reference voltage	14	Ch.1 power output
7	Ripple filter	15	Ch.1 sense output
8	V_{CC1}	16	Beep output

■ Absolute Maximum Ratings

No.	Parameter	Symbol	Rating	Unit	Note
1	Supply voltage	V_{CC1}	4.6	V	—
2		V_{CC2}	4.6		—
3	Supply current	I_{CC1}	100	mA	—
4		I_{CC2}	200		—
5	Power dissipation	P_D	253	mW	*1
6	Storage temperature	T_{stg}	–55 to +150	°C	*2
7	Operating ambient temperature	T_{opr}	–25 to +75	°C	*2
8	Operating ambient atmospheric pressure	P_{opr}	$1.013 \times 10^5 \pm 0.61 \times 10^5$	Pa	—
9	Operating constant gravity	G_{opr}	9 810	m/s^2	—
10	Operating shock	S_{opr}	4 900	m/s^2	—

Note) *1: T_a = 75°C. For the independent IC without a heat sink.
*2: Except for the storage temperature and operating ambient temperature, all ratings are for T_a = 25°C.

■ Operating Supply Voltage Range

Parameter	Symbol	Range	Unit	Note
Operating Supply Voltage Range	V_{CC1}	2.0 to 4.5	V	—
	V_{CC2}	0.9 to 4.5		—

Request for your special attention and precautions in using the technical information and semiconductors described in this book

(1) If any of the products or technical information described in this book is to be exported or provided to non-residents, the laws and regulations of the exporting country, especially, those with regard to security export control, must be observed.

(2) The technical information described in this book is intended only to show the main characteristics and application circuit examples of the products, and no license is granted under any intellectual property right or other right owned by our company or any other company. Therefore, no responsibility is assumed by our company as to the infringement upon any such right owned by any other company which may arise as a result of the use of technical information described in this book.

(3) The products described in this book are intended to be used for standard applications or general electronic equipment (such as office equipment, communications equipment, measuring instruments and household appliances).
Consult our sales staff in advance for information on the following applications:
- Special applications (such as for airplanes, aerospace, automobiles, traffic control equipment, combustion equipment, life support systems and safety devices) in which exceptional quality and reliability are required, or if the failure or malfunction of the products may directly jeopardize life or harm the human body.
- Any applications other than the standard applications intended.

(4) The products and product specifications described in this book are subject to change without notice for modification and/or improvement. At the final stage of your design, purchasing, or use of the products, therefore, ask for the most up-to-date Product Standards in advance to make sure that the latest specifications satisfy your requirements.

(5) When designing your equipment, comply with the range of absolute maximum rating and the guaranteed operating conditions (operating power supply voltage and operating environment etc.). Especially, please be careful not to exceed the range of absolute maximum rating on the transient state, such as power-on, power-off and mode-switching. Otherwise, we will not be liable for any defect which may arise later in your equipment.
 Even when the products are used within the guaranteed values, take into the consideration of incidence of break down and failure mode, possible to occur to semiconductor products. Measures on the systems such as redundant design, arresting the spread of fire or preventing glitch are recommended in order to prevent physical injury, fire, social damages, for example, by using the products.

(6) Comply with the instructions for use in order to prevent breakdown and characteristics change due to external factors (ESD, EOS, thermal stress and mechanical stress) at the time of handling, mounting or at customer's process. When using products for which damp-proof packing is required, satisfy the conditions, such as shelf life and the elapsed time since first opening the packages.

(7) This book may be not reprinted or reproduced whether wholly or partially, without the prior written permission of Matsushita Electric Industrial Co., Ltd.

littlediode
COMPONENTS FOR ALL

Littlediode supplies new, hard to find or obsolete electronic components and semiconductors all over the world.

With over two million different components listed you are sure to find the part you need.

Feel free to visit us today at our online store:

LittleDiode.com

Looking forward to providing you with the best possible service.