

# DATA SHEET

Part No.	AN17020A
Package Code No.	*QFN016 - P - 0304

SEMICONDUCTOR COMPANY  
MATSUSHITA ELECTRIC INDUSTRIAL CO., LTD.

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# AN17020A

## Silicon Monolithic Bipolar IC

### ■ Features

- Headphone amplifier IC HP / Line Control Function, Mute Function

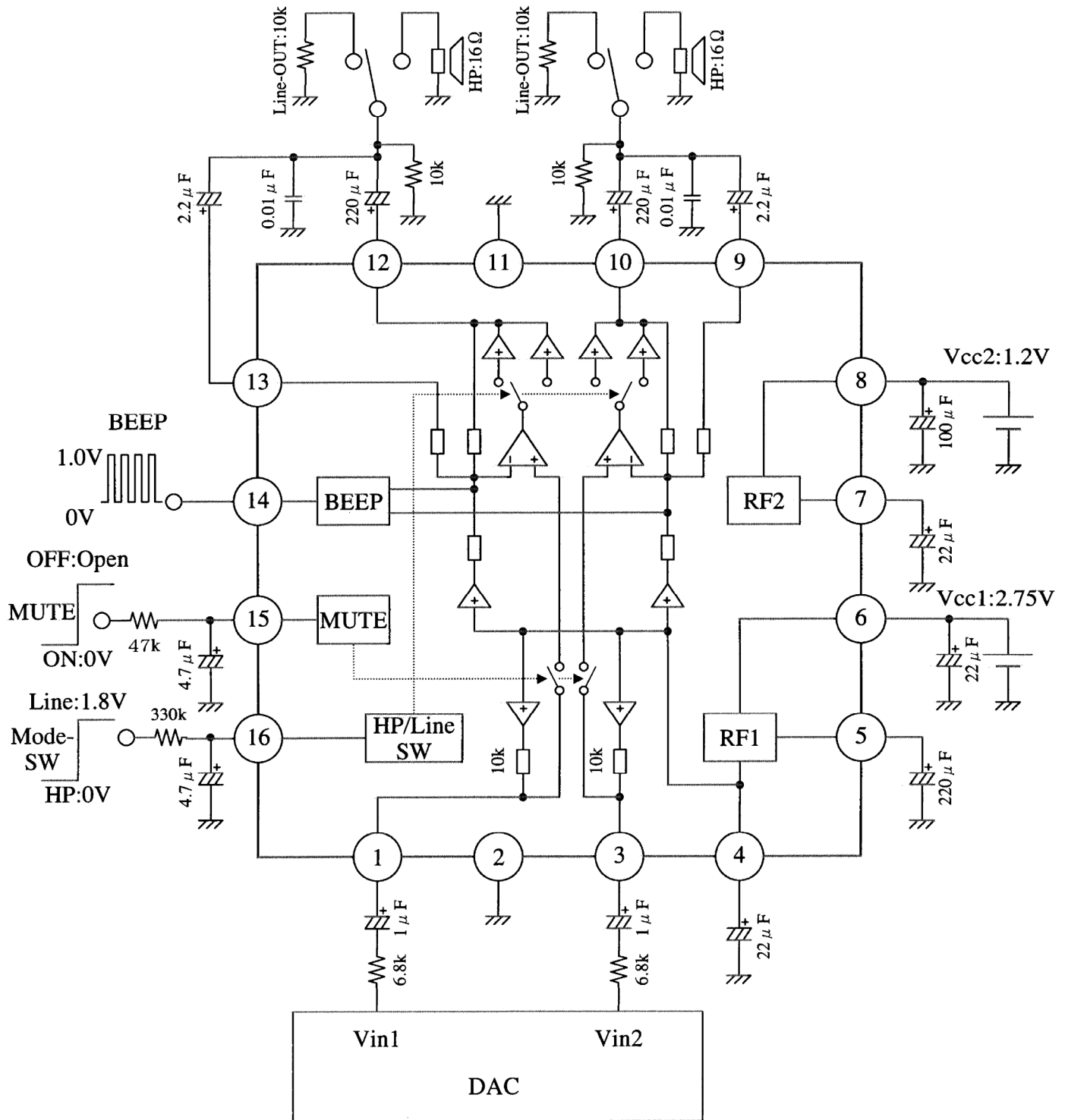
### ■ Application

- Low Frequency Amplifier

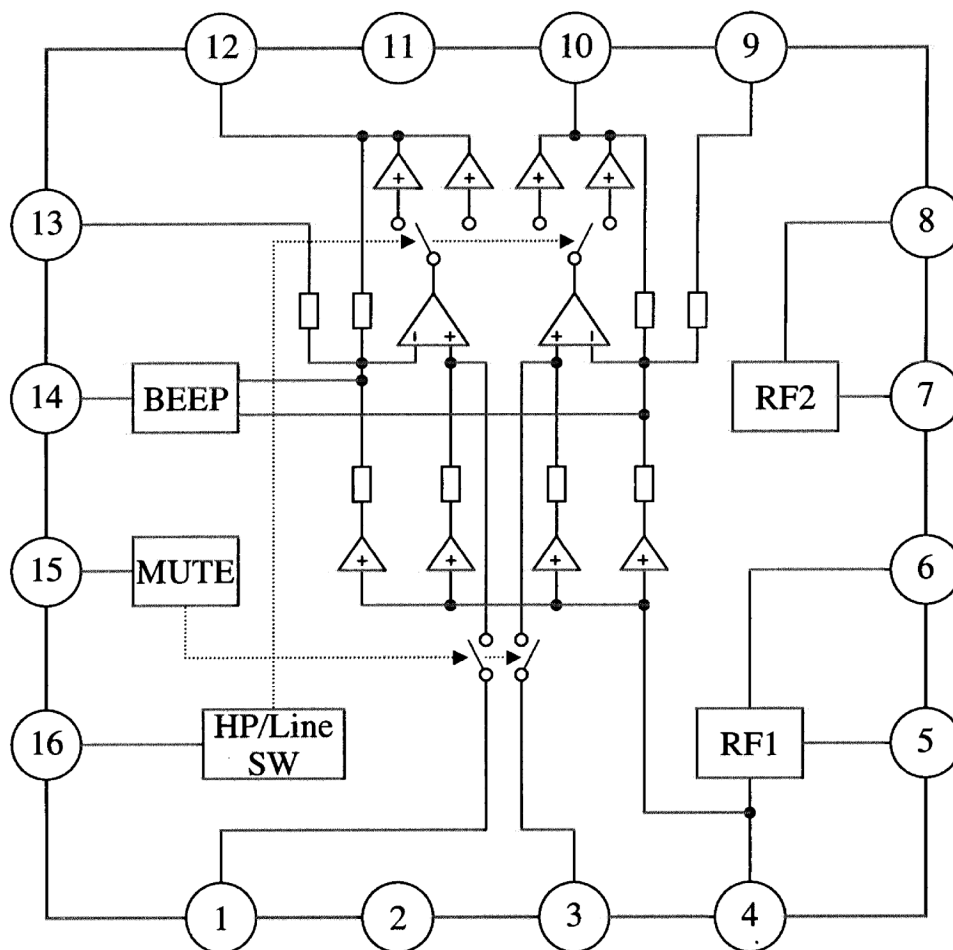
### ■ Package

- Quadrangle - 16Pin Plastic Package ( QFN type )

■ Application Circuit



■ Block Diagram



■ Pin Descriptions

Pin No.	Function	Pin No.	Function
1	Ch.1 input	9	Ch.2 sense output
2	GND ( Input )	10	Ch.2 power output
3	Ch.2 input	11	GND ( Output )
4	Half V <sub>CC1</sub> reference voltage	12	Ch.1 power output
5	Ripple filter	13	Ch.1 sense output
6	V <sub>CC1</sub>	14	BEEP output
7	Half V <sub>CC2</sub> reference voltage	15	Muting output
8	V <sub>CC2</sub>	16	HP / Line control

### ■ Absolute Maximum Ratings

No.	Parameter	Symbol	Rating	Unit	Note
1	Storage temperature	$T_{\text{stg}}$	-55 to +150	°C	*1
2	Operating ambient temp	$T_{\text{opr}}$	-25 to +75	°C	
3	Operating ambient atmospheric pressure	$P_{\text{opr}}$	$1.013 \times 10^5 \pm 0.61 \times 10^5$	Pa	
4	Operating constant gravity	$G_{\text{opr}}$	9 810	m/s <sup>2</sup>	
5	Operating shock	$S_{\text{opr}}$	4 900	m/s <sup>2</sup>	
6	Supply voltage 1	$V_{\text{CC1}}$	4.6	V	
7	Supply current 1	$I_{\text{CC1}}$	100	mA	
8	Supply voltage 2	$V_{\text{CC2}}$	4.6	V	
9	Supply current 2	$I_{\text{CC2}}$	200	mA	
10	Power dissipation	$P_{\text{D}}$	292	mW	*2

Note ) \*1 :  $T_a = 25^\circ\text{C}$  except storage temperature and operating ambient temperature.

\*2 : At  $T_a = 75^\circ\text{C}$  on PCB of the standard, 50 mm × 50 mm × 0.8 tmm glass-epoxy.

### ■ Operating Supply Voltage Range

Operating Supply Voltage Range	$V_{\text{CC1}}$	2.0 to 4.5
	$V_{\text{CC2}}$	0.9 to 4.5

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