AN8817SB

2ch. Linear Driver IC for CD/CD-ROM

■ Overview

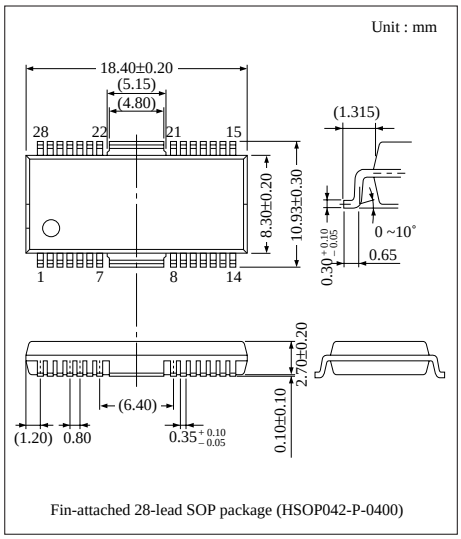
The AN8817SB is a 2ch. driver using the power operational amplifier method. It employs the surface mounting type package superior in radiation characteristics.

■ Features

- Input/Output gain setting enabled by an external resistance
- 2ch. independently controllable PC (Power Cut) feature built-in
- Thermal shut down circuit (with hysteresis) built-in
- Relatively easy pattern design by separating and concentrating the input line and output line

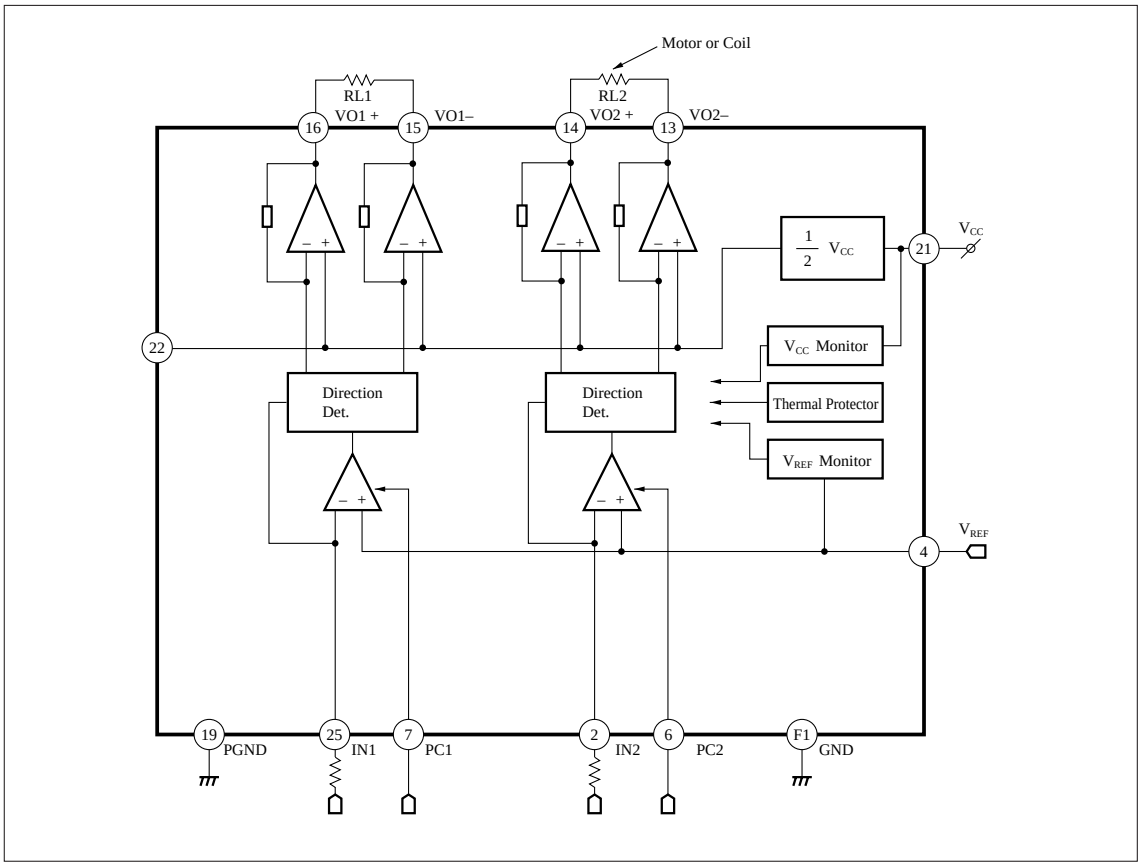
■ Application

Actuator for CD/CD-ROM, motor driver



Fin-attached 28-lead SOP package (HSOP042-P-0400)

■ Block Diagram



■ Absolute Maximum Ratings (Ta=25˚C)

Parameter	Symbol	Rating	Unit
Supply Voltage	V_{CC}	18	V
Supply Current	I_{CC}	—	mA
Power Dissipation Note)	P_D	3140	mW
Operating Ambient Temperature	T_{opr}	–30 ~ + 85	˚C
Storage Temperature	T_{stg}	–55 ~ + 150	˚C

Note) For surface mounting on 100 × 80 × 1.6 mm double face glass epoxy board.

■ Recommended Operating Range (Ta=25˚C)

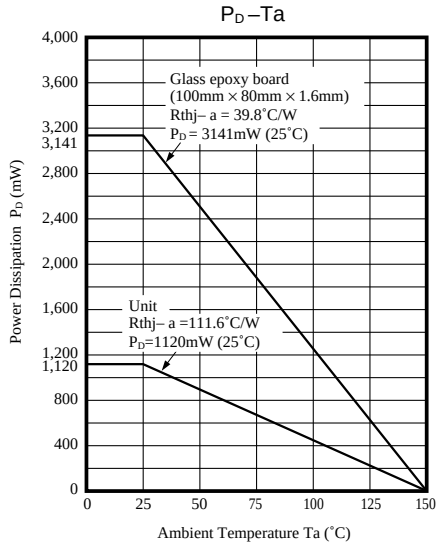
Parameter	Symbol	Range
Operating Supply Voltage Range	V_{CC}	4.5V ~ 14V

■ Electrical Characteristics (Ta=25˚C±2˚C)

Parameter	Symbol	Condition	min.	typ.	max.	Unit
Total Circuit Current	I_{tot}	V_{CC} = 8V	5	10	15	mA
Drivers 1 and 2						
Input Offset Voltage	V_{IOF}	V_{CC} = 8V R_L = 8Ω, R_{IN} =10kΩ	–10	—	10	mV
Output Offset Voltage	V_{OOF}	V_{CC} = 8V R_L = 8Ω, R_{IN} =10kΩ	–50	—	50	mV
Gain	G	V_{CC} = 8V R_L = 8Ω, R_{IN} =10kΩ	18	20	22	dB
Maximum Output Amplitude (+)	V_{L+}	V_{CC} = 8V R_L = 8Ω, R_{IN} =10kΩ	4.4	5.0	—	V
Maximum Output Amplitude (–)	V_{L-}	V_{CC} = 8V R_L = 8Ω, R_{IN} =10kΩ	—	–5.0	–4.4	V
Threshold H	V_{PCH}	V_{CC} = 8V R_L = 8Ω, R_{IN} =10kΩ	2.0	—	—	V
Threshold L	V_{PCL}	V_{CC} = 8V R_L = 8Ω, R_{IN} =10kΩ	—	—	0.3	V
Reset Circuit						
Reset Operation Release Supply Voltage	V_{RST}	I_{IN} =10μA, R_{IN} =10kΩ	3.0	3.2	3.3	V
V_{REF} Detection	V_{REF}		2.0	—	—	V
Heat Protection Circuit						
Operation Temperature Equilibrium Value Note 1)	T_{THD}		(—)	(180)	(—)	˚C
Operation Temperature Hysteresis Width Note 1)	ΔT_{THD}		(—)	(45)	(—)	˚C

Note 1) Characteristic value in parentheses is a reference value for design but not a guaranteed value.

■ Characteristic Curve



■ Pin Name

Pin No.	Pin Name	Pin No.	Pin Name
1	NC	16	Normal Rotation Output Pin of Motor Driver 1
2	Input Pin of Motor Driver 2	17	NC
3	NC	18	NC
4	V_{REF} Input Pin	19	GND for Driver
5	NC	20	NC
6	PC (Power Cut) Input Pin 2	21	V_{CC}
7	PC (Power Cut) Input Pin 1	22	1/2 V_{CC} Output Pin
8	NC	23	NC
9	NC	24	NC
10	NC	25	Input Pin of Motor Driver 1
11	NC	26	NC
12	NC	27	NC
13	Reverse Rotation Output Pin of Motor Driver 2	28	NC
14	Normal Rotation Output Pin of Motor Driver 2	Fin	GND
15	Reverse Rotation Output Pin of Motor Driver 1	—	—