

PMW motor driver IC for slim type CD-ROM

BH6530KV / BH6534KV

BH6530KV / BH6534KV is a motor driver IC developed for CD-ROM, and DVD-ROM. This IC integrates 3-phase PMW driver for driving spindle motor and PMW driver for driving feed motor.

BH6530KV	FG signal 1 phase output
BH6534KV	FG signal 3 phase synthesis output

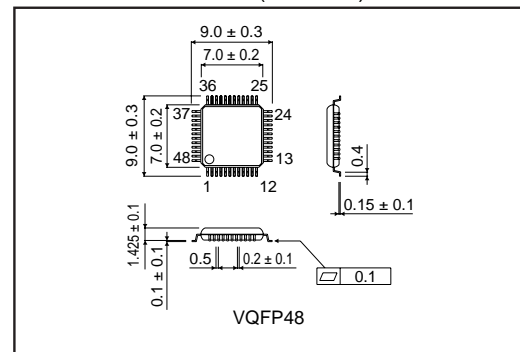
●Applications

CD-ROM slim, DVD-ROM slim set

●Features

- 1) OP amp. is incorporated for input of each driver to construct filter easily.
- 2) Built-in low ON resistance power MOS.
- 3) Built-in current limit, hall bias, FG output and inversion protection for 3-phase PWM driver.
- 4) Built-in standby circuit.
- 5) Built-in thermal shutdown circuit.
- 6) High-efficient CD drive system achieved by using this IC and 2ch PWM driver BH6526FV in pairs.

●External dimensions (Unit : mm)



●Absolute maximum ratings (Ta=25°C)

Parameter	Symbol	Limits	Unit
Supply voltage	Vcc	9	V
Power dissipation	Pd	1180 *1	mW
Operating temperature range	Topr	-30 to +85	°C
Storage temperature range	Tastg	-55 to +150	°C
Max.output current	IoMAX	3 *2	A

*1 Derating : 9.5mW/°C for operation above Ta=25°C.

*2 Intermittent current at maximum applied time of 5 msec, 1/10 duty (max.)

●Recommended operating conditions (Ta=25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit
Supply voltage	PRE / POW Vcc	4.5	5.0	5.5	V

Optical disc ICs

●Electrical characteristics

(Unless otherwise noted, Ta=25°C, Vcc=5V, Vref=1.65V, RL(SL)=8Ω+47μH, RL(SP)=2Ω+47μH, RNF=0.33Ω)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Current in standby mode	IST	-	0	0.1	mA	
< PWM driver >						
Input dead zone (one side)	VDZ1	0	20	50	mV	
Voltage gain	GVC	12	14	16	dB	
Output ON resistance	RON1	-	0.8	1.6	Ω	Io=500mA
< 3-phase motor driver >						
Input dead zone (one side)	VDZ2	2	50	150	mV	
Input-output gain	gm2	0.40	0.55	0.70	A/V	RNF=0.33Ω
Output ON resistance	RON2	-	0.5	1.0	Ω	Io=500mA
Torque limit voltage	VLIM2	0.16	0.20	0.24	V	RNF=0.33Ω

●Application circuit

