



IC

# 电机/执行机构驱动器

A

电机 / 执行机构驱动器

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IC

# 电机/执行机构驱动器

► DC有刷电机驱动器 ► H桥驱动器  
► 输出1.0A一个电机用可反转电机驱动器

## DC有刷电机驱动器

### H桥驱动器 7V耐压

Part No.	ch	Supply Voltage (V)	Output Current (A)	Input Threshold Voltage		Output ON Resistance(Ω Typ.)	Output Modes	Package
				H Level(V)	L Level(V)			
BD6210F	1	3.0 to 5.5	0.5	2.0 or more	0.8 or less	1.0	Forward/ Reverse/ Standby(Idle)/ Brake	SOP8
BD6210HFP			1.0			1.0		HRP7
BD6211F			2.0			0.5		SOP8
BD6211HFP								HRP7
BD6212FP								HSOP25
BD6212HFP								HRP7

### H桥驱动器 18V耐压

BD6220F	1	6.0 to 15.0	0.5	2.0 or more	0.8 or less	1.5	Forward/ Reverse/ Standby(Idle)/ Brake	SOP8
BD6221F			1.0			1.5		SOP8
BD6222FP			2.0			1.0		HSOP25
BD6222HFP						1.5		HRP7
BD6225FP	2		0.5			1.5		HSOP25
BD6226FP			1.0			1.5		HSOP25

### H桥驱动器 36V耐压

BD6230F	1	6.0 to 32.0	0.5	2.0 or more	0.8 or less	1.5	Forward/ Reverse/ Standby(Idle)/ Brake	SOP8
BD6231F			1.0			1.5		SOP8
BD6231HFP			2.0			1.0		HRP7
BD6232FP						1.5		HSOP25
BD6232HFP	2		1.0			1.5		HRP7
BD6236FP			2.0			1.0		HSOP25
BD6236FM						1.5		HSOP-M28
BD6237FM			2.0			1.0		HSOP-M28
BD62110AEFJ	1	8.0 to 28.0	1.0			1.8		HTSOP-J8

### H桥驱动器 40V/60V耐压(支持车载)

Part No.	Maximum Voltage (V)	Supply Voltage (V)	Output Current (A)	ch	Output ON Resistance (upper + lower)(Ω Typ.)	Output Modes	Operating Temperature (°C)	Package	Automotive Grade	AEC-Q100
BD16933EFV-C	60	7.0 to 36.0	1	1.5	1.81	Available to select High, Low or Hi-Z Output by each Output terminal.	-40 to +125	HTSSOP-B20	YES	YES
BD16922EFV-M	60	8.0 to 36.0	1	2	2.25	Forward / Reverse / Standby / Brake	-40 to +110	HTSSOP-B24	YES	YES
BD16936EFV-M	60	8.0 to 36.0	1	3	2.1	Available to select High, Low or Hi-Z Output by each Output terminal.	-40 to +110	HTSSOP-B28	YES	YES
New BD16950EFV-C	40	5.5 to 40	-	1	-	Available to select High, Low or Hi-Z Output by each Output terminal.	-40 to +125	HTSSOP-B24	YES	YES
New BD16938EFV-C	40	6.3 to 32	-	4	1.4	Available to select High, Low or Hi-Z Output by each Output terminal.	-40 to +125	HTSSOP-B28	YES	YES

### H桥驱动器 大电流系列

Part No.	ch	Supply Voltage (V)	Output Current (A)	Input Threshold Voltage		Output ON Resistance(Ω Typ.)	Output Modes	Package
				H Level(V)	L Level(V)			
BD62222HFP	1	6.0 to 27.0	2.5	2.0 or more	0.8 or less	1.0	Forward/ Reverse/ Standby(Idle)/ Brake	HRP7
BD62321HFP		6.0 to 32.0	3.0					

### H桥驱动器 高速驱动系列

BD65491FV	1	1.8 to 16.0	1.2 peak4.0	1.45 or more	0.5 or less	0.35	Forward/Reverse/ Standby(Idle)/Brake	SSOP-B16
BD65492MUV	2	1.8 to 16.0	1.0	1.45 or more	0.5 or less	0.9	Forward/Reverse/ Standby(Idle)/Brake	VQFN024V4040
BD65494MUV	1	2.0 to 9.0	1.0 peak2.5	2.0 or more	0.7 or less	0.55	Forward/Reverse/ Standby(Idle)/Brake	VQFN016V3030
BD65496MUV	1	1.8 to 16.0	1.2 peak5.0	1.45 or more	0.5 or less	0.35	Forward/Reverse/ Standby(Idle)/Brake	VQFN024V4040
BD6376GUL	1	2.0 to 9.0	1.0	2.0 or more	0.7 or less	0.45	Forward/Reverse/ Standby(Idle)/Brake	VCSP50L1
BD6736FV	1	2.0 to 9.0	1.0 peak3.2	2.0 or more	0.7 or less	0.35	Forward/Reverse/ Standby(Idle)/Brake	SSOP-B20
BD6735FV	2	2.0 to 8.0	1.0	2.0 or more	0.7 or less	1.0	Forward/Reverse/ Standby(Idle)/Brake	SSOP-B20
New BD63565EFV	2	1.8 to 16.0	1.0	1.45 or more	0.5 or less	0.9	Forward/Reverse/ Standby(Idle)/Brake	HTSSOP-B20
New BD63573NUV	1	2.0 to 16.0	1.2 peak3.2	1.45 or more	0.5 or less	0.38	Forward/Reverse/ Standby(Idle)/Brake	VSON010V3030

### 输出1.0A一个电机用可反转电机驱动器

Part No.	Supply Voltage (V)	Output Current (A)	Input Threshold Voltage		Output Saturation Voltage (V Typ.)	Output Modes	Package
			H Level(V)	L Level(V)			
BA6287F	4.5 to 15	1.0	2.0 or more	0.8 or less	1.0 (Io=0.2A)	Forward/Reverse/ Idle/Brake	SOP8
BA6285FS	4.5 to 15	1.0	2.0 or more	0.8 or less	1.0 (Io=0.2A)	Forward/Reverse/ Idle/Brake	SSOP-A16
BA6285AFP-Y	4.5 to 24	1.0	2.0 or more	0.8 or less	1.0 (Io=0.2A)	Forward/Reverse/ Idle/Brake	HSOP25
BA6920FP-Y	6.5 to 34	1.0	3.0 or more	0.8 or less	2.2 (Io=0.02A)	Forward/Reverse/ Idle/Brake	HSOP25

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电机/执行机构驱动器

- DC有刷电机驱动器 ► 输出2.0A以上 一个电机用可反转电机驱动器  
 ► 输出1.0A以上 两个电机用可反转电机驱动器  
 ► 步进电机驱动器 ► 高性能、高可靠性36V耐压系列 步进电机驱动器

输出2.0A以上 一个电机用可反转电机驱动器							
Part No.	Supply Voltage (V)	Output Current (A)	Input Threshold Voltage		Output Saturation Voltage (V Typ.)	Output Modes	Package
			H Level(V)	L Level(V)			
BA6219BFP-Y	8 to 18	2.2	3.0 or more	1.0 or less	2.4 (Io=0.4A)	Forward/Reverse/Idle/Brake	HSOP25
输出1.0A以上 两个电机用可反转电机驱动器							
BA6247FP-Y	8 to 18	1.0	3.5 or more	1.0 or less	2.4 (Io=0.5A)	Forward/Reverse/Brake	HSOP25

## 步进电机驱动器

高性能、高可靠性36V耐压系列 步进电机驱动器 用于PPC, MFP, 工业设备等

### BD63730EFV



### BD6387EFV



### BD6385EFV



### BD6383EFV



### BD6389FM



### BD68720EFV



### BD68715EFV



### BD68710EFV



### BD63725BEFV



### BD63720AEFV



### BD63715AEFV



### BD63710AEFV



### BD63910MUV



### BD63920MUV



\*1 BD6387EFV, BD6385EFV, BD6383EFV, 和BD6389FM功能兼容。 \*2 BD6387EFV, BD6385EFV, 和BD6383EFV引脚兼容。

\*3 BD63876EFV, BD63874EFV, 和BD63872EFV功能兼容。 \*4 BD63876EFV, BD63874EFV, 和BD63872EFV引脚兼容。

\*5 BD63720AEFV, BD63715AEFV, 和BD63710AEFV功能兼容。 \*6 BD63720AEFV, BD63715AEFV, 和BD63710AEFV引脚兼容。

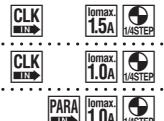
Part No.	Supply Voltage(V)	Output Current (A)	Circuit Current (mA)	Input Threshold Voltage		Output ON Resistance ( $\Omega$ )	Package
				High Level Voltage(V)	Low Level Voltage(V)		
BD63730EFV	19 to 28	3.0	2.0	2.0	0.8	0.4	HTSSOP-B54
BD6387EFV	10 to 28	2.0	4.5	2.0	0.8	0.8	HTSSOP-B40
BD6385EFV	10 to 28	1.5	4.5	2.0	0.8	1.0	HTSSOP-B40
BD6383EFV	10 to 28	1.0	4.5	2.0	0.8	1.5	HTSSOP-B40
BD6389FM	10 to 28	2.2	4.5	2.0	0.8	0.7	HSOP-M36
BD68720EFV	19 to 28	2.0	2.0	2.0	0.8	0.65	HTSSOP-B28
BD68715EFV	19 to 28	1.5	2.0	2.0	0.8	0.95	HTSSOP-B28
BD68710EFV	19 to 28	1.0	2.0	2.0	0.8	1.2	HTSSOP-B28
BD63725BEFV	8 to 28	2.5	2.0	2.0	0.8	0.35	HTSSOP-B28
BD63720AEFV	19 to 28	2.0	2.0	2.0	0.8	0.65	HTSSOP-B28
BD63715AEFV	19 to 28	1.5	2.0	2.0	0.8	0.95	HTSSOP-B28
BD63710AEFV	19 to 28	1.0	2.0	2.0	0.8	1.2	HTSSOP-B28
New BD63910MUV	8 to 28	1.0	2.5	2.0	0.8	1.3	VQFN028V5050
New BD63920MUV	8 to 28	2.0	2.5	2.0	0.8	0.49	VQFN028V5050

图标说明	控制信号输入入CLK-IN型	控制信号输入PARALLEL-IN型	Iomax 1.0A	Iomax 1.5A	Iomax 2.0A	Iomax 2.2A	Iomax 2.5A	Iomax 3.0A	最大输出电流	STEP	恒流 PWM	可以切换正转和反转	DECAY SW衰减转换功能
Thin PKG薄型封装	Small Size Power Pad小尺寸功率封装	FUNC COMPATIBLE功能兼容	引脚与其他厂家兼容轻松替换	ONE POWER内置稳压器实现单电源系统	T.S.D.内置温度保护	O.C.P.内置过电流保护	UV LO内置低电压保护						
OVLO内置过电压保护电路	4kV静电耐压	6kV静电耐压	PIN COMPATIBLE相邻引脚短路保护	IC逆装保护									



- 步进电机驱动器 45V耐压系列 步进电机驱动器
- 三相无刷电机驱动器 带速度控制的三相无刷电机预驱动器
- 带速度控制的三相无刷电机驱动器
- 三相无刷电机驱动器
- 三相无刷电机驱动器

## 45V耐压系列 步进电机驱动器

**BD6425EFV****BD6423EFV****BD6422EFV**

Part No.	Supply Voltage(V) V <sub>cc</sub>	Output Current (A)	Circuit Current (mA)	Input Threshold Voltage		Output ON Resistance (Ω)	Package
				High Level Voltage(V)	Low Level Voltage(V)		
<b>BD6425EFV</b>	19 to 42	1.5	2.0	2.0	0.8	1.1	HTSSOP-B28
<b>BD6423EFV</b>	19 to 42	1.0	2.0	2.0	0.8	2.0	HTSSOP-B24
<b>BD6422EFV</b>	19 to 42	1.0	2.0	2.0	0.8	2.0	HTSSOP-B24

## 三相无刷电机驱动器

## 带速度控制的三相无刷电机预驱动器

**BD6762FV**

Part No.	Max. Voltage (V)	Supply Voltage (V)	Operating Temperature (°C)	Circuit Current (mA)	Input Threshold Voltage	External FET Drive Voltage	PWM Frequency (kHz)	Package
<b>BD6762FV</b>	36	16.0 to 28.0	-25 to +75	17.0	2.2	0.8	V <sub>cc</sub> + 6.8	10.8

## 带速度控制的三相无刷电机驱动器

**BD67929EFV**

Part No.	Max. Voltage (V)	Supply Voltage (V)	Operating Temperature (°C)	Circuit Current (mA)	Input Threshold Voltage	External FET Drive Voltage	PWM Frequency (kHz)	Package
<b>BD67929EFV</b>	36	19 to 28	-25 to +85	4.0	3.0	1.5	-	200

## 三相无刷电机预驱动器

**BD6761FS****BD63001AMUV****BD63002AMUV****BD16805FV-M**

Part No.	Max. Voltage (V)	Supply Voltage (V)	Operating Temperature (°C)	Circuit Current (mA)	Input Threshold Voltage		External FET Drive Voltage	PWM Frequency (kHz)	Package
					H Level(V)	L Level(V)			
<b>BD6761FS</b>	36	16.0 to 28.0	-35 to +75	15.0	2.2	0.8	V <sub>cc</sub> + 6	10.5	15 SSOP-A32
<b>BD63001AMUV</b>	33	4.5 to 5.5, 6.0 to 28	-40 to +85	2.5	2.0	0.8	V <sub>cc</sub> -0.2	9.5	20 VQFN024V4040
<b>BD63002AMUV</b>	30	8.0 to 26.4	-40 to +85	2.5	2.0	0.8	V <sub>cc</sub> + 7	5	External IN VQFN028V5050
Part No.	Max. Voltage (V)	Supply Voltage (V)	Operating Temperature (°C)	Circuit Current (mA)	Input Threshold Voltage	External FET Drive Voltage V <sub>cc</sub> =8V	PWM Frequency (kHz)	Package	Automotive Grade AEC-Q100
<b>BD16805FV-M</b>	60	8 to 18	-40 to +110	15.2	3.0	1.0 2 × V <sub>cc</sub> -0.5	8	25 SSOP-B40	YES

## 三相无刷电机驱动器

**BD63005AMUV****BD63006MUV****BD63007MUV****BD63035EFV-M**

Part No.	Max. Voltage (V)	Supply Voltage (V)	Output Current (A)	Operating Temperature (°C)	Circuit Current (mA)	Input Threshold Voltage		Output ON Resistance (Ω)	Package
						H Level(V)	L Level(V)		
<b>BD63005AMUV</b>	33	10 to 28	2.0	-25 to +85	4.4	2	0.8	0.17	VQFN040V6060
<b>BD63006MUV</b>	33	8 to 28	1.5	-40 to +85	4.4	-	-	0.8	VQFN024V4040
<b>BD63007MUV</b>	33	8 to 28	3.0	-25 to +85	4.4	2	0.8	0.17	VQFN040V6060
Part No.	Max. Voltage (V)	Supply Voltage (V)	Operating Temperature (°C)	Circuit Current (mA)	Input Threshold Voltage	Output ON Resistance (Ω)	PWM Frequency (kHz)	Package	Automotive Grade AEC-Q100
<b>BD63035EFV-M</b>	36	8 to 28	-40 to +105	8	2	0.8	0.6	22.7 HTSSOP-B20	YES

OWLO 内置过电压保护电路

引脚与其他厂家兼容轻松替换

4kV 静电耐压

8kV 耐压

0μA 流0μA

STANDBY 短路保护

+40°C 工作温度范围

External FET Nch 上侧:Nch/下侧:Nch

External FET Pch 上侧:Pch/下侧:Nch

DMOS DMOS 输出

HYS 内置磁滞放大器

内置O.V.P. 保护电路

HIGH SPEED 支持高速运转

SHORT BRAKE 内置短路制动

CLOCK 相位时钟

No Input Selection 内置电机锁定期保护电路

O.V.P. 内置过电压保护电路

U.V.P. 内置输出低电压保护电路



IC

## 电机/执行机构驱动器

▶ 风扇电机驱动器

▶ 5V单相全波风扇电机驱动器

▶ 标准单相全波风扇电机驱动器

## 风扇电机驱动器

## 5V单相全波风扇电机驱动器

## BH6766FVM

5V  
IN  
300  
CLASSFG  
SOFT  
S/W  
HALL

T.S.D.

## BD6965NUX

5V  
IN  
350  
CLASSFG  
SOFT  
S/WFEED  
LOCK

T.S.D.

## BD6966NUX

5V  
IN  
450  
CLASSFG  
SOFT  
S/W  
HALLFEED  
LOCK

T.S.D.

## BU6909AGFT

5V  
IN  
300  
CLASS  
HALL  
SensorFG  
SOFT  
S/WFEED  
LOCK

T.S.D.

## BU69090NUX

5V  
IN  
300  
CLASS  
HALL  
SensorFG  
SOFT  
S/WFEED  
LOCK

T.S.D.

Part No.	Supply Voltage (V)	Io Max. (mA)	Power Tr.	Output Saturation Voltage (V)	Speed Control	Hall Bias Voltage (V)	Lock Time Ratio	Package
BH6766FVM	2.0 to 6.0	630	CMOS	Upper and Lower 0.6( $i_o=250mA$ )	-	1.3	-	MSOP8
BD6965NUX	2.0 to 5.5	800	CMOS	Upper and Lower 0.4( $i_o=250mA$ )	Direct PWM	-	1 : 10	VSON008X2030
BD6966NUX	1.8 to 5.5	1,000	CMOS	Upper and Lower 0.4( $i_o=300mA$ )	Direct PWM	1.0	1 : 10	VSON010X3030
BU6909AGFT	1.8 to 5.5	800	CMOS	Upper and Lower 0.16( $i_o=200mA$ )	Direct PWM	Include Hall sensor	1 : 10	TSSOF6
New BU69090NUX	1.8 to 5.5	800	CMOS	Upper and Lower 0.16( $i_o=200mA$ )	Direct PWM	Include Hall sensor	1 : 10	VSON008X2030

## 标准单相全波风扇电机驱动器

## BD6981FVM

12V  
IN  
250  
CLASSFG  
SOFT  
S/W  
HALLLOCK  
FEED  
ALARM

T.S.D.

## BD6982FVM

12V  
IN  
250  
CLASSFG  
SOFT  
S/W  
HALLLOCK  
FEED  
ALARM

T.S.D.

## BD6967FVM

12V  
IN  
250  
CLASSFG  
SOFT  
S/W  
HALLLOCK  
FEED  
ALARM

T.S.D.

## BD6968FVM

12V  
IN  
250  
CLASSFG  
SOFT  
S/W  
HALLLOCK  
FEED  
ALARM

T.S.D.

## BD6962FVM

12V  
IN  
300  
CLASSFG  
SOFT  
S/WLOCK  
FEED  
ALARM

T.S.D.

## BD6964FVM

12V  
IN  
300  
CLASSFG  
SOFT  
S/WLOCK  
FEED  
ALARM

T.S.D.

## BD6961F

12V  
IN  
350  
CLASSFG  
SOFT  
S/WLOCK  
FEED  
ALARM

T.S.D.

## BD6964F

12V  
IN  
350  
CLASSFG  
SOFT  
S/WLOCK  
FEED  
ALARM

T.S.D.

## BD69830FV

24V  
IN  
350  
CLASS

FG

HALL  
FEED  
LOCK

T.S.D.

Part No.	Supply Voltage (V)	Io Max. (mA)	Power Tr.	Output Saturation Voltage (V)	Speed Control	Hall Bias Voltage (V)	Lock Time Ratio	Package
BD6981FVM	2.8 to 16.0	800	DMOS	Upper and Lower 0.45( $i_o=200mA$ )	-	1.2	1 : 6	MSOP8
BD6982FVM	2.8 to 16.0	800	DMOS	Upper and Lower 0.45( $i_o=200mA$ )	-	1.2	1 : 6	MSOP8
BD6967FVM	3.3 to 14.0	800	DMOS	Upper and Lower 0.45( $i_o=200mA$ )	DC/Direct PWM	1.2	1 : 10	MSOP10
BD6968FVM	3.3 to 14.0	800	DMOS	Upper and Lower 0.45( $i_o=200mA$ )	DC/Direct PWM	1.2	1 : 10	MSOP10
BD6962FVM	3.3 to 14.0	800	DMOS	Upper and Lower 0.4( $i_o=300mA$ )	Direct PWM	-	1 : 10	MSOP8
BD6964FVM	3.3 to 14.0	800	DMOS	Upper and Lower 0.4( $i_o=300mA$ )	Direct PWM	-	1 : 10	MSOP8
BD6961F	3.3 to 14.0	1,000	DMOS	Upper and Lower 0.4( $i_o=300mA$ )	Direct PWM	-	1 : 10	SOP8
BD6964F	3.3 to 14.0	1,000	DMOS	Upper and Lower 0.4( $i_o=300mA$ )	Direct PWM	-	1 : 10	SOP8
BD69830FV	6.0 to 28.0	900	DMOS	Upper and Lower 0.6( $i_o=200mA$ )	Direct PWM	1.2	1 : 30	SSOP-B14

图标说明

5V电源  
电压兼容12V电源  
电压兼容24V电源  
电压兼容内置于霍尔元件  
用电源电压250  
CLASS300  
CLASS350  
CLASS400  
CLASS450  
CLASS800  
CLASS  
PRE  
DRIVERHALL  
Sensor内置于霍尔元件  
安装封装RPM脉冲  
信号输出有助于软  
开关、静音SOFT  
S/W内置于霍尔元件  
开关可控制转  
动速度LOCK  
FEED  
LOCK不需要电机锁定检测  
所需的外部电容器LOCK  
FEED  
ALARM锁定警报  
信号输出

- 风扇电机驱动器 ► 高性能单相全波风扇电机驱动器  
 ► 双相半波风扇电机驱动器  
 ► 三相全波风扇电机驱动器

## 高性能单相全波风扇电机驱动器

## BD6971FV

12V 350mA Small PKG

FG SOFT S/W HALL SPEED LOCK T.S.D. MIN rpm TSS IO LIMIT

## BD6994FV

12V 350mA Small PKG

FG SOFT S/W HALL SPEED LOCK T.S.D. MIN rpm TSS IO LIMIT

## BD6995FV

12V 400mA Small PKG

FG SOFT S/W HALL SPEED LOCK T.S.D. MIN rpm TSS IO LIMIT

## BD61243FV

12V 450mA Small PKG

FG SOFT S/W HALL SPEED LOCK T.S.D. MIN rpm TSS IO LIMIT

## BD69730FV

12V PRE DRIVER Small PKG

FG SOFT S/W HALL SPEED LOCK T.S.D. MIN rpm TSS IO LIMIT

## BD69740FV

12V PRE DRIVER Small PKG

FG SOFT S/W HALL SPEED LOCK T.S.D. MIN rpm TSS IO LIMIT

## BD61245EFV

12V 800mA Small PKG

FG SOFT S/W HALL SPEED LOCK T.S.D. MIN rpm TSS IO LIMIT

## BD61250MUV

12V PRE DRIVER Small PKG

FG SOFT S/W HALL SPEED LOCK T.S.D. MIN rpm TSS IO LIMIT

Part No.	Supply Voltage (V)	I <sub>o</sub> Max. (mA)	Power Transistor	Output Saturation Voltage (V)	Speed Control	Hall Bias Voltage (V)	Lock Time Ratio	Package
BD6971FV	3.5 to 17.0	1,000	DMOS	Upper and Lower 0.6(I <sub>o</sub> =200mA)	DC/Direct PWM	1.3	1 : 10	SSOP-B14
BD6994FV	4.5 to 17.0	1,200	DMOS	Upper and Lower 0.6(I <sub>o</sub> =400mA)	DC/Direct PWM	1.25	1 : 10	SSOP-B16
BD6995FV	4.3 to 17.0	1,200	DMOS	Upper and Lower 0.6(I <sub>o</sub> =400mA)	DC	1.25	1 : 10	SSOP-B16
BD61243FV	5.5 to 16.0	1,200	DMOS	Upper and Lower 0.4(I <sub>o</sub> =400mA)	DC/Direct PWM	1.25	1 : 10	SSOP-B14
BD69730FV	4.3 to 17.0	10	Pre-Driver	-	DC/Direct PWM	1.26	1 : 20	SSOP-B16
BD69740FV	4.3 to 17.0	10	Pre-Driver	-	DC/Direct PWM	1.26	1 : 20	SSOP-B16
New BD61245EFV	4.0 to 16.0	1,800	DMOS	Upper and Lower 0.2(I <sub>o</sub> =400mA)	DC/Direct PWM	-	1 : 10	HTSSOP-B16
New BD61250MUV	4.5 to 36.0	10	Pre-Driver	-	DC/Direct PWM	-	1 : 20	VQFN024V4040

## 双相半波风扇电机驱动器

## BD6701F

24V 400mA Small PKG

FG SPEED LOCK T.S.D. MIN rpm

## BA6406F

24V PRE DRIVER

SPEED LOCK ALARM

## BA6506F

24V PRE DRIVER

SPEED LOCK

## BA6901F

24V PRE DRIVER

FG SPEED LOCK ALARM T.S.D. IO LIMIT

Part No.	Supply Voltage (V)	I <sub>o</sub> Max. (mA)	Power Transistor	Output Saturation Voltage (V)	Speed Control	Hall Bias Voltage (V)	Zener Diode Clamp Voltage (V)	Output Clamp Voltage (V)	Lock Time Ratio	Package
BD6701F	6.0 to 28.0	800	DMOS	0.3 (I <sub>o</sub> =200mA)	-	-	-	54	1 : 10	SOP8
BA6406F	4.0 to 28.0	70	Pre-Driver	-	-	-	-	-	1 : 4.5	SOP8
BA6506F	4.0 to 28.0	70	Pre-Driver	-	-	-	-	-	1 : 4.5	SOP8
BA6901F	3.5 to 28.0	70	Pre-Driver	-	PWM	-	-	-	1 : 10	SOP16

## 三相全波风扇电机驱动器

## BH67173NUX

5V 400mA Small PKG

SENSOR LESS DRIVE PWM 150° FG TSS T.S.D. LOCK T.S.D. IO SPEED

## BD6326NUX

5V 400mA Small PKG

SENSOR LESS DRIVE PWM 180° FG TSS T.S.D. LOCK T.S.D. IO SPEED

## BD63242EFV

12V 400mA Small PKG

SENSOR LESS DRIVE PWM 180° FG TSS T.S.D. LOCK T.S.D. IO SPEED MIN rpm

## BD63441AFU

12V PRE DRIVER Small PKG

SENSOR LESS DRIVE PWM 150° FG TSS T.S.D. LOCK T.S.D. IO SPEED SOFT START MIN rpm

## BD63251MUV

12V PRE DRIVER Small PKG

SENSOR LESS DRIVE PWM 180° FG TSS T.S.D. LOCK T.S.D. IO SPEED SOFT START MIN rpm

Part No.	Supply Voltage (V)	I <sub>o</sub> Max. (mA)	Power Transistor	Output Saturation Voltage (V)	Speed Control	Hall Bias Voltage (V)	Lock Time Ratio	Package
BH67173NUX	2.2 to 5.5	700	CMOS	Upper and Lower 0.25(I <sub>o</sub> =250mA)	Direct PWM	-	1 : 5	VSON010X3030
BD6326NUX	2.2 to 5.5	700	CMOS	Upper and Lower 0.25(I <sub>o</sub> =250mA)	Direct PWM	-	1 : 5	VSON010X3030
New BD63242EFV	5.0 to 16.0	1,000	DMOS	Upper and Lower 0.3(I <sub>o</sub> =300mA)	DC/Direct PWM	-	1 : 5*	HTSSOP-B16
BD63441AFU	5.5 to 16.0	10	Pre-Drive	-	DC/Direct PWM	-	1 : 10	SSOP-C20
BD63251MUV	5.5 to 15.0	10	Pre-Drive	-	DC/Direct PWM	1.5	1 : 10	VQFN024V4040

\* SOSC terminal connect capacitor is 80pF

LOCK 检测功能

START 低占空比状态下可以启动电机

T.S.D. 内置温度保护电路

SENSOR LESS DRIVE 无需霍尔传感器检测电机制转子位置的驱动方式

SOFT START 软启动功能

PWM 150° / 180° 输出通电方式

MIN rpm 最小转动速度设定

IO LIMIT 可设定输出电流限制值

DBulk-N 内置逆接连接器时防止IC被坏的二极管



IC

# 电机/执行机构驱动器

- ▶ 风扇电机驱动器 ▶ 三相无刷风扇电机驱动器
- ▶ 三相无刷风扇电机控制器
- ▶ ODD用驱动器 ▶ 1ch~5ch系统电机驱动器

## 三相无刷风扇电机驱动器 家电用

### BM6202FS

600V  
MAX  
I<sub>omax</sub>  
1.5A

T.S.D. UV LO (A) O.C.P.

### BM6203FS

600V  
MAX  
I<sub>omax</sub>  
2.5A

T.S.D. UV LO (A) O.C.P.

### BM6204FS

600V  
MAX  
I<sub>omax</sub>  
1.5A

T.S.D. UV LO (A) O.C.P. IO LOCK FG LIMIT

### BM6205FS

600V  
MAX  
I<sub>omax</sub>  
2.5A

T.S.D. UV LO (A) O.C.P. IO LOCK FG LIMIT

### BM6206FS

600V  
MAX  
I<sub>omax</sub>  
1.5A

T.S.D. UV LO (A) O.C.P. IO LOCK FG LIMIT

### BM6207FS

600V  
MAX  
I<sub>omax</sub>  
2.5A

T.S.D. UV LO (A) O.C.P. IO LOCK FG LIMIT

### BM6208FS

600V  
MAX  
I<sub>omax</sub>  
1.5A

T.S.D. UV LO (A) O.C.P. IO LOCK FG LIMIT

### BM6209FS

600V  
MAX  
I<sub>omax</sub>  
2.5A

T.S.D. UV LO (A) O.C.P. IO LOCK FG LIMIT

Part No.	Control	Output Device	Voltage Ratings (V)	Output Current (A)	Output On Resistance(Ω)	Diode Forward Voltage(V)	Package
BM6202FS	6 inputs	PrestoMOS	600	1.5	2.7	1.1	SSOP-A54_23
BM6203FS	6 inputs	PrestoMOS	600	2.5	1.7	1.1	SSOP-A54_23
BM6204FS	120°	PrestoMOS	600	1.5	2.7	1.1	SSOP-A54_36
BM6205FS	120°	PrestoMOS	600	2.5	1.7	1.1	SSOP-A54_36
BM6206FS	150°	PrestoMOS	600	1.5	2.7	1.1	SSOP-A54_36
BM6207FS	150°	PrestoMOS	600	2.5	1.7	1.1	SSOP-A54_36
BM6208FS	180°(Sinusoidal)	PrestoMOS	600	1.5	2.7	1.1	SSOP-A54_36
BM6209FS	180°(Sinusoidal)	PrestoMOS	600	2.5	1.7	1.1	SSOP-A54_36

## 三相无刷风扇电机控制器 家电用

### BD62011AFS

180°  
PWM

T.S.D. UV LO (A) LOCK FG

### BD62012AFS

150°  
PWM

T.S.D. UV LO (A) LOCK FG

### BD62013AFS

150°  
PWM

T.S.D. UV LO (A) LOCK FG HALL

### BD62014AFS

180°  
PWM

T.S.D. UV LO (A) LOCK FG

Part No.	Supply Voltage (V)	Commutation Logic	Control Voltage Range (V)	Phase Control Range (deg)	FG Pulse Number	Hall Bias Switch	Package
BD62011AFS	10.0 to 18.0	180°(Sinusoidal)	2.1 to 5.4	0 to +40	4/12	-	SSOP-A24
BD62012AFS	10.0 to 18.0	150°	2.1 to 5.4	0 to +30	4/12	-	SSOP-A24
BD62013AFS	10.0 to 18.0	150°	2.1 to 5.4	0 to +30	12	✓	SSOP-A24
BD62014AFS	10.0 to 18.0	180°(Sinusoidal)	1.1 to 4.4	0 to +40	4/12	-	SSOP-A24

## ODD用驱动器

### 1ch系统电机驱动器 应用广泛

Part No.	Power Supply (V)	Dynamic Range of Driver Output (V)	I/F Amp.	Mute of Driver Output	Regulator for DSP (V)	Protect Circuit for Low Power Supply	Protect for Abnormal Input	Temp. Protection	Standby Circuit	Package
BD7931F	4.5 to 14.0	7.5(V <sub>CC</sub> =8V, R <sub>L</sub> =500mA)	-	-	-	-	-	✓	✓	SOP8
BH6578FVM	4.5 to 5.5	4.5(V <sub>CC</sub> =5V, R <sub>L</sub> =500mA)	-	-	-	-	-	✓	-	MSOP8

### 2ch~3ch系统电机驱动器 执行器用

Part No.	Power Supply (V)	I/F	FOCUS TILT	TRACKING	SLED	LOADING	SPINDLE	Short Circuit Protection for Loading	Protect for Pickup	Package
BD8271EFV	4.5 to 14.0	Analog & PWM	1ch	-	2ch STEEPING	-	-	-	-	HTSSOP-B24

### 4ch系统电机驱动器 CD播放器的基本形式

Part No.	Power Supply (V)	I/F	FOCUS TILT	TRACKING	SLED	LOADING	SPINDLE	Short Circuit Protection for Loading	Protect for Pickup	Regulator	Reset	Package	Automotive Grade AEC-Q100
BD8226EFV	5.5 to 14.0	Analog & PWM	1ch	1ch	DC Select input	DC	-	-	Variable voltage × 1	-	HTSSOP-B24	-	
BD8229EFV	4.5 to 14.0	Analog & PWM	1ch	1ch	DC Select input	DC	-	-	1 input 1 output	HTSSOP-B24	-		
BD8266EFV-M	4.5 to 10.0	Analog & PWM	1ch	1ch	DC Select input	DC	-	Self off	-	-	HTSSOP-B24	YES	
BD8263EFV-M	4.5 to 10.0	Analog & PWM	1ch	1ch	DC Select input	DC	✓	-	-	-	HTSSOP-B28	YES	

### 5ch系统电机驱动器 增加负载通道

Part No.	Power Supply (V)	I/F	FOCUS TILT	TRACKING	SLED	LOADING	SPINDLE	Short Circuit Protection for Loading	Protect for Pickup	Regulator	Package	Automotive Grade AEC-Q100
BD8205EFV-M	6.0 to 10.0	Analog & PWM	1ch	1ch	DC	DC	DC	-	-	-	HTSSOP-B24	YES
BD8203EFV	4.5 to 14.0	Analog & PWM	1ch	1ch	DC	DC	DC	-	-	Variable voltage × 1 5V Fixed × 1	HTSSOP-B40	-

图标说明

600V  
耐压150°  
PWM180°  
输出通电  
方式I<sub>omax</sub>  
最大输出电流I<sub>omax</sub>  
2.5A内置温度  
T.S.D. 保护电路UV  
LO  
内置低电压  
保护电路(A)  
O.C.P.  
内置过电流  
保护电路IO  
LIMIT  
可设定输出  
电流限制值LOCK  
不需要电机锁定检测  
所需的外部电容器

- ▶ ODD用驱动器
  - ▶ 6ch~9ch系统电机驱动器
  - ▶ 半高无传感器系统电机驱动器
  - ▶ 超薄3传感器系统电机驱动器
- ▶ 打印机用驱动器

## 6ch~9ch系统电机驱动器 DVD、Blu-ray播放器的基本形式

Part No.	Power Supply (V)	I/F	FOCUS TILT	TRACKING	SLED	LOADING	SPINDLE	LVDS for SA	Short Circuit Protection for Loading	Protect for Pickup	Package	Automotive Grade AEC-Q100
<b>BD8255MUV-M</b>	4.5 to 5.5	SPI	1ch	1ch	2ch STTEPING	DC	3-Phase Brushless	-	✓	-	VQFN48SV7070	YES
<b>BD8256EFV-M</b>	4.5 to 10.5	SPI	2ch	1ch	2ch STTEPING	DC	3-Phase Brushless	2ch	✓	Self off	HTSSOP-B54	YES

## 半高无传感器系统电机驱动器 节约空间型

Part No.	Supply Voltage (V)	ch	Output System	Output ( $\Omega$ )	Output Gain	Under Voltage Protection	Oversupply Protection	Input Abnormality Protection	Temperature Protection	Package
<b>BD7763EFV</b>	4.3 to 5.5	1 to 3ch	PWM	1.5	17.5dB	✓	-	✓	✓	HTSSOP-B54
		4, 5ch	PWM	1.3	17.5dB					
	10.8 to 13.2	6, 7ch	PWM	2.2	1.15A/V					
		8ch	PWM	1.0	1.15A/V					
		9ch	PWM	1.5	-					

## 超薄3传感器系统电机驱动器 基本型

<b>BH5510KV/ BH5510KVT</b>	4.0 to 5.5	1 to 3ch	PWM	1.3	14dB	✓	✓	✓	✓	VQFP48C/TQFP48V
		4, 5ch	PWM	1.5	14dB					
		6ch	PWM	0.6	1A/V or 0.2A/V					
<b>BH5511KV</b>	4.0 to 5.5	1 to 3ch	PWM	1.3	17.5dB/8.0dB	✓	✓	✓	✓	VQFP48C
		4, 5ch	PWM	1.5	17.5dB					
		6ch	PWM	0.6	0.5A/V or 0.33A/V or 0.17A/V					

## 打印机用驱动器

## 多棱镜用三相无刷电机驱动器 面向LBP, PPC

Part No.	Supply Voltage (V)	Output Current (A)	Circuit Current (mA)	Input Threshold Voltage H Level(V) L Level(V)	Current Limit Detect Voltage (V)	ON Resistance ( $\Omega$ )	Circuit Current When Motor Stop (mA)	PWM Frequency (kHz)	Package	
<b>BD67929EFV</b>	19 to 28	2.5	4.0	3.0	1.5	0.5	1.35 (Io=1.0A)	1.0	200	HTSSOP-B28

## 打印机用有刷电机驱动器

Part No.	Supply Voltage (V)	Output Current (A)	Output Current Peak(A)	Circuit Current (mA)	Input Threshold Voltage H Level(V) L Level(V)	Output ON Resistance ( $\Omega$ )	Package
<b>BD63821EFV</b>	19 to 28	1.0	1.5	2.5	2.0 0.8	1.9 (Io=0.5A)	HTSSOP-B28
<b>BD63823EFV</b>	19 to 28	2.0	2.8	2.5	2.0 0.8	0.65 (Io=1.5A)	HTSSOP-B28
<b>BD62210AEFV</b>	8 to 28	1.0	1.5	2.5	2.0 0.8	1.9	HTSSOP-B28
<b>BD62220AEFV</b>	8 to 28	2.0	2.8	2.5	2.0 0.8	0.65	HTSSOP-B28

纸传送或运输用双极型 步进电机驱动器 面向LBP、PPC、Scanner、Photo Printer、FAX、IJP  
其他步进电机驱动器的通用IC新产品线请见P.A69、P.A71。

Part No.	Supply Voltage(V) V <sub>cc</sub>	Output Current (A)	Circuit Current (mA)	Input Threshold Voltage		Output ON Resistance ( $\Omega$ )	Package
				High Level Voltage(V)	Low Level Voltage(V)		
<b>BD63801EFV</b>	19 to 28	0.8	2.7	2.0	0.8	2.8	HTSSOP-B24
<b>BD68715EFV</b>	19 to 28	1.5	2.0	2.0	0.8	0.95	HTSSOP-B28
<b>BD63715AEFV</b>	19 to 28	1.5	2.0	2.0	0.8	0.95	HTSSOP-B28

## 纸传信用三相无刷电机预驱动器 面向LBP、PPC

Part No.	Max. Voltage (V)	Supply Voltage (V)	Operating Temperature (°C)	Circuit Current (mA)	Input Threshold Voltage		External Threshold Voltage Upper(V) Lower(V)	PWM Frequency (kHz)	Package	
					H Level(V)	L Level(V)				
<b>BD6761FS</b>	36	16 to 28	-35 to +75	15.0	2.2	0.8	V <sub>cc</sub> + 6	10.5	15	SSOP-A32
<b>BD6762FV</b>	36	16 to 28	-25 to +75	17.0	2.2	0.8	V <sub>cc</sub> + 6.8	10.8	16	SSOP-B40

多棱镜用三相无刷电机驱动器 面向LBP, PPC : 输出电流限值为电流限制电压除以外接输出电流检测用电阻 (RNF电阻) 的值。  
打印机用有刷电机驱动器 : BD63821EFV和BD63823EFV引脚兼容。BD62210AEFV和BD62220AEFV引脚兼容。

## 数码相机用驱动器

## 5ch数码相机用系统镜头驱动器

Part No.	Supply Voltage (V)	Driver Output Max. Current (A)	Drive Method Examples of Actuator(Driven Motor, Driving System, and Output ON Resistance(Ω))				Input I/F	Reference Voltage Output for Output Setting Current(V)	Package (mm)	
			AF	Zoom	Iris	Shutter				
<b>BD6370GUL</b>	2.7 to 5.5	0.5	ex. 1	STM(1, 2ch) Constant voltage/ FULL ON 1.4	DCM(3ch) Constant voltage/ FULL ON 1.4	DCM or VCM(4ch) Constant voltage/ Constant current/ FULL ON 1.4	VCM(5ch) Constant current 1.4	Parallel + Serial	Output current control using built-in D/A converter	VCSP50L2 (2.6 × 2.6) H=0.55Max.
			ex. 2	STM(1, 2ch) Constant voltage/ FULL ON 1.4	STM(1, 2, 3ch) Constant voltage/ FULL ON 1.4	DCM or VCM(4ch) Constant voltage/ Constant current/ FULL ON 1.4	VCM(5ch) Constant current 1.4			
<b>BD6758MWV</b>	2.5 to 5.5	0.8	ex.	STM(1, 2ch) FULL ON 1.2	DCM(3ch) FULL ON 1.2	DCM or VCM(4ch) FULL ON 1.2	VCM(5ch) Constant current 1.0	Parallel	1.2 (± 3%)	UQFN036V5050 (5.0 × 5.0) H=1.0Max.
<b>BD6758KN</b>	2.5 to 5.5	0.8	ex.	STM(1, 2ch) FULL ON 1.2	DCM(3ch) FULL ON 1.2	DCM or VCM(4ch) FULL ON 1.2	VCM(5ch) Constant current 1.0	Parallel	1.2 (± 3%)	VQFN36 (6.2 × 6.2) H=0.95Max.

## 6ch数码相机用系统镜头驱动器

Part No.	Supply Voltage (V)	Driver Output Max. Current (A)	Drive Method Examples of Actuator(Driven Motor, Driving System, and Output ON Resistance(Ω))					Input I/F	Reference Voltage Output for Output Setting Current(V)	Package (mm)	
			AF	Zoom	Iris	Shutter	Barrier				
<b>BD6373GW</b>	2.5 to 5.5	0.8	ex.	STM(1, 2ch) FULL ON 1.2	STM(3, 4ch) FULL ON 1.2	DCM or VCM(5ch) FULL ON 1.2	VCM(6ch) FULL ON 1.2	-	Parallel	-	UCSP75M2 (2.6 × 2.6) H=0.85Max.
<b>BD6753KV</b>	4.5 to 10.5 (1, 2ch) 2.0 to 10.5 (3 to 6ch)	0.8	ex.	STM(1, 2ch) FULL ON 1.2	STM(3, 4ch) FULL ON 1.2	DCM or VCM(5ch) PWM(± 3%) 1.2	VCM(6ch) PWM(± 3%) 1.2	-	Parallel + Serial	0.9 (± 10%)	VQFP48C (9.0 × 9.0) H=1.60Max.

## 7ch数码相机系统镜头驱动器

Part No.	Supply Voltage (V)	Driver Output Max. Current (A)	Drive Method Examples of Actuator(Driven Motor, Driving System, and Output ON Resistance(Ω))					Input I/F	Reference Voltage Output for Output Setting Current(V)	Package (mm)	
			AF	Zoom	Iris	Shutter	Anti Shock				
<b>BD6889GU</b>	2.5 to 5.7	0.8	ex. 1	STM(1, 2ch) FULL ON 1.3	STM(3, 4ch) FULL ON 1.3	STM(5, 6ch) FULL ON 1.3	VCM(7ch) Constant current(± 3%) 0.9	-	Parallel	0.9 (± 2%)	VBGA063T050 (5.0 × 5.0) H=1.20Max.
			ex. 2	STM(1, 2ch) FULL ON 1.3	DCM(3ch) FULL ON 1.3	DCM(4ch) FULL ON 1.3	VCM(7ch) Constant current(± 3%) 0.9	STM(5, 6ch) FULL ON 1.3			

## 1ch/2ch单反相机用镜头驱动器

Part No.	ch	Supply Voltage (V)	Driver Output Max. Current (A)	Drive Method Examples of Actuator(Driven Motor, Driving System, and Output ON Resistance(Ω))					Turn on Time	Turn off Time	Control Frequency	Package (mm)	
				Cleaner	AF	Zoom	Iris	Shutter					
<b>BD65492MUV</b>	2	1.8 to 16.0	1.0	ex.	-	STM(2ch) FULL ON 0.9	-	-	-	200ns(Including 80ns to Prevent from overlap current.)	80ns	500kHz (Max.)	VQFN024V4040 (4.0 × 4.0)H=1.0Max.
<b>BD6735FV</b>	2	2.0 to 8.0	1.0	ex.	-	-	-	STM(2ch) FULL ON 1.0	-	300ns(Including 90ns to Prevent from overlap current.)	100ns	100kHz (Max.)	SSOP-B20 (6.5 × 6.4)H=1.25Max.
<b>BD6376GUL</b>	1	2.0 to 9.0	1.0	ex.	-	-	DCM(1ch) FULL ON 0.45	-	-	200ns(Including 80ns to Prevent from overlap current.)	60ns	200kHz (Max.)	VCSP50L1 (1.6 × 1.6)H=0.55Max.
<b>BD65491FV</b>	1	1.8 to 16.0	1.2 Peak 4.0	ex.	-	-	-	Plunger(1ch) FULL ON 0.35	-	150ns(Including 80ns to Prevent from overlap current.)	50ns	500kHz (Max.)	SSOP-B16 (6.5 × 6.0)H=1.25Max.
<b>BD6736FV</b>	1	2.0 to 9.0	1.0 Peak 3.2	ex.	-	-	-	Plunger(1ch) FULL ON 0.35	-	1000ns(Including 800ns to Prevent from overlap current.)	100ns	100kHz (Max.)	SSOP-B20 (6.5 × 6.4)H=1.25Max.
<b>BD65499MUV</b>	1	4.0 to 27.0	0.5 Peak 2.0	ex.	Piezo(1ch) FULL ON 0.6	-	-	-	-	150ns(Including 80ns to Prevent from overlap current.)	50ns	300kHz (Max.)	VQFN028V5050 (5.0 × 5.0)H=1.0Max.
<b>BD65494MUV</b>	1	2.0 to 9.0	1.0 Peak 2.5	ex.	-	-	-	Plunger(1ch) FULL ON 0.55	-	200ns(Including 80ns to Prevent from overlap current.)	60ns	200kHz (Max.)	VQFN016V3030 (3.0 × 3.0)H=1.0Max.
<b>BD65496MUV</b>	1	1.8 to 16.0	1.2 Peak 5.0	ex.	-	-	-	Plunger(1ch) FULL ON 0.35	-	150ns(Including 80ns to Prevent from overlap current.)	50ns	500kHz (Max.)	VQFN024V4040 (4.0 × 4.0)H=1.0Max.

STM : 步进电机, DCM : DC 电机, VCM : 音圈电机 ("Drive method examples of actuator" 为代表例, 可研讨其他使用方法。)

▶ 数码相机用驱动器 ▶ 支持 μ-step 的数码相机用系统镜头驱动器

### 支持 μ-step 的数码相机用系统镜头驱动器

Part No.	Supply Voltage (V)	Driver Output Max. Current (A)	Drive Method Examples of Actuator(Driven Motor, Driving System, and Output ON Resistance(Ω))						Input I/F	Microstep Resolution	Package (mm)
			AF	Zoom		Iris	Shutter	Others			
<b>BU24020GU</b>	2.7 to 3.6 (Logic) 2.7 to 5.5 (Driver)	0.5	ex. 1	STM(1, 2ch) μ-step(class-D) 1.5	STM(3, 4ch) μ-step(class-D) 1.5	-	-	-	3-wire serial	1,024	VCSP85H2 (2.6 × 2.6) H=1.0Max.
			ex. 2	STM(1, 2ch) μ-step(class-D) 1.5	DCM(3ch) FULL ON(PWM) 1.5	VCM(4ch) FULL ON(PWM) 1.5	-	-			
<b>BU24031GW</b>	1.62 to 3.6 (Io) 2.7 to 3.6 (Logic) 2.7 to 5.5 (Driver)	0.5	ex	STM(1, 2ch) μ-step(class-D) 2.0	DCM(4ch) FULL ON(PWM + Speed Control) 2.0	VCM(3ch) FULL ON(PWM) 2.0	VCM(5ch) constant current 1.0	-	3-wire serial	1,024	UCSP75M2 (2.5 × 2.5) H=0.85Max.
<b>BU24033GW</b>	1.62 to 3.6 (Io) 2.7 to 3.6 (Logic) 2.7 to 5.5 (Driver)	0.5/0.6	ex. 1	STM(1, 2ch) μ-step(class-D) 1.5	STM(3, 4ch) μ-step(class-D) 1.5	VCM(5ch) FULL ON(PWM) 1.0	VCM(6ch) constant current 1.0	-	3-wire serial	1,024	UCSP75M3 (3.0 × 3.0) H=0.85Max.
			ex. 2	STM(1, 2ch) μ-step(class-D) 1.5	DCM(5ch) FULL ON (PWM + Speed Control) 1.0	VCM(3ch) FULL ON(PWM) 1.5	VCM(6ch) constant current 1.0	DCM(4ch) FULL ON(PWM) 1.5			
<b>BU24035GW</b>	2.7 to 3.6 (Logic) 2.7 to 5.5 (Driver)	0.5/0.6	ex. 1	STM(1, 2ch) μ-step(class-D) 1.5	DCM(5ch) FULL ON (PWM + Speed Control) 1.0	STM(3, 4ch) μ-step(class-D) 1.5	VCM(6ch) constant current 1.0	-	3-wire serial	1,024	UCSP75M3 (3.1 × 3.1) H=0.85Max.
			ex. 2	STM(1, 2ch) μ-step(class-D) 1.5	DCM(3ch) FULL ON (PWM + Speed Control) 1.5	VCM(5ch) FULL ON(PWM)/ constant current 1.0	VCM(6ch) constant current 1.0	VCM(4ch) FULL ON(PWM) 1.5			
<b>BU24036MWV</b>	2.7 to 3.6 (Logic) 2.7 to 5.5 (Driver)	0.5/0.6	ex. 1	STM(1, 2ch) μ-step(class-D) 2.0	DCM(5ch) FULL ON (PWM + Speed Control) 1.0	STM(3, 4ch) μ-step(class-D) 1.5	VCM(6ch) constant current 1.0	-	3-wire serial	1,024	UQFN040V5050 (5.0 × 5.0) H=1.0Max.
			ex. 2	STM(1, 2ch) μ-step(class-D) 2.0	DCM(3ch) FULL ON (PWM + Speed Control) 1.5	VCM(5ch) FULL ON(PWM)/ constant current 1.0	VCM(6ch) constant current 1.0	VCM(4ch) FULL ON(PWM) 1.5			
<b>BU24038GW</b>	2.7 to 3.6 (Logic) 2.7 to 5.5 (Driver)	0.5	ex. 1	STM(1, 2ch) μ-step(class-D) 1.5	STM (3, 4ch) μ-step (class-D) 1.5	VCM(8ch) FULL ON(PWM) 1.5	VCM(9ch) constant current 1.0	DCM(7ch) FULL ON(PWM) 1.5	3-wire serial	1,024	UCSP75M3 (3.8 × 3.8) H=0.85Max.
			ex. 2	STM(1, 2ch) μ-step(class-D) 1.5	STM(5, 6ch) μ-step(class-D) 1.5	VCM(3ch) VCM(4ch) FULL ON (PWM) FULL ON (PWM) 1.5 1.5	VCM(9ch) constant current 1.0	DCM(7ch) FULL ON(PWM) 1.5			

STM : 步进电机, DCM : DC 电机, VCM : 音圈电机 ("Drive method examples of actuator" 为代表例, 可研讨其他使用方法。)

## 便携式相机模块用驱动器

### 音圈电机用并行接口镜头驱动器

Part No.	Supply Voltage (V)	Applications	ch	Drive System	Driver Output Max. Current (mA)	Driver Output ON Resistance ( $\Omega$ )	Input I/F	Input Mode Selection Terminal	Current Sense Resistor	Temperature Protection	Power Save Function	Back side coating	Package (mm)
<b>BD6369GUL</b>	2.5 to 5.5	Drive AF <b>AF</b> using voice coil motor.	1	Constant voltage ( $\pm 5\%$ )	400	0.8 ( $V_{cc}=5V, I_o=0.4A$ )	Parallel	✓	-	✓	✓	with	VCSP50L2 ( $2.1 \times 2.1$ ) $H=0.55$ Max.

### 单向型音圈电机用两线串行(I<sup>2</sup>C-Compatible)接口镜头驱动器

Part No.	Supply Voltage (V)	Applications	ch	Drive System	Driver Output Max. Current (mA)	Driver Output Low Voltage (V)	Input I/F	Ringing Compensation	Temperature Protection	Back side coating	Package (mm)
<b>BU64241GWZ</b>	2.3 to 4.8	Drive AF <b>AF</b> using voice coil motor.	0.25	Constant current ( $\pm 10\%$ )	130	0.15 ( $V_{cc}=3V, I_o=100mA$ )	I <sup>2</sup> C Fm compatible	ISRC	✓	without	UCSP30L1 ( $1.3 \times 0.77$ ) $H=0.33$ Max.
<b>BU64243GWZ</b>	2.3 to 4.8	Drive AF <b>AF</b> using voice coil motor.	0.25	Constant current ( $\pm 10\%$ )	130	0.15 ( $V_{cc}=3V, I_o=100mA$ )	I <sup>2</sup> C Fm compatible	ISRC	✓	with	UCSP35L1 ( $0.77 \times 1.3$ ) $H=0.40$ Max.
<b>BU64244GWZ</b>	2.3 to 4.8	Drive AF <b>AF</b> using voice coil motor.	0.25	Constant current ( $\pm 10\%$ )	130	0.15 ( $V_{cc}=3V, I_o=100mA$ )	I <sup>2</sup> C Fm compatible	ISRC	✓	with	UCSP35L1 ( $0.77 \times 1.3$ ) $H=0.36$ Max.
<b>BU64291GWZ</b>	2.3 to 4.8	Drive AF <b>AF</b> using voice coil motor.	0.5	Constant current ( $\pm 5\%$ )	100	0.25 ( $V_{cc}=3V, I_o=100mA$ )	I <sup>2</sup> C Fm compatible	ISRC	✓	without	UCSP30L1 ( $0.77 \times 1.37$ ) $H=0.33$ Max.
<b>New BU64980AGWZ</b>	2.3 to 4.8	Drive AF <b>AF</b> using voice coil motor.	0.25	Constant current ( $\pm 5\%$ )	100	0.25 ( $V_{cc}=3V, I_o=100mA$ )	I <sup>2</sup> C Fm+ compatible	ISRC	✓	without	UCSP35L1 ( $0.72 \times 1.13$ ) $H=0.3$ Max.
<b>New BU64981AGWZ</b>	2.3 to 4.8	Drive AF <b>AF</b> using voice coil motor.	0.25	Constant current ( $\pm 5\%$ )	100	0.25 ( $V_{cc}=3V, I_o=100mA$ )	I <sup>2</sup> C Fm+ compatible	ISRC	✓	with	UCSP30L1A ( $0.72 \times 1.13$ ) $H=0.33$ Max.

### 双向型音圈电机用两线串行(I<sup>2</sup>C-Compatible)接口镜头驱动器

Part No.	Supply Voltage (V)	Applications	ch	Drive System	Driver Output Max. Current (mA)	Driver Output ON Resistance ( $\Omega$ )	Input I/F	Ringing Compensation	Temperature Protection	Back side coating	Package (mm)
<b>BU64295GWZ</b>	2.3 to 4.8	Drive AF <b>AF</b> using voice coil motor.	1	Constant current ( $\pm 5\%$ )	$\pm 100$	2.0 ( $V_{DD}=3V$ )	I <sup>2</sup> C Fm compatible	ISRC	✓	without	UCSP30L1 ( $0.77 \times 1.2$ ) $H=0.33$ Max.
<b>BU64296GXW</b>	2.3 to 4.8	Drive AF <b>AF</b> using voice coil motor.	1	Constant current ( $\pm 5\%$ )	$\pm 100$	2.0 ( $V_{DD}=3V$ )	I <sup>2</sup> C Fm compatible	ISRC	✓	without	UCSP16X1 ( $0.77 \times 1.2$ ) $H=0.20$ Max.
<b>BU64297GWZ</b>	2.3 to 4.8	Drive AF <b>AF</b> using voice coil motor.	1	Constant current ( $\pm 5\%$ )	$\pm 100$	2.0 ( $V_{DD}=3V$ )	I <sup>2</sup> C Fm compatible	ISRC	✓	with	UCSP35L1 ( $0.77 \times 1.2$ ) $H=0.36$ Max.
<b>New BU64985GWZ</b>	1.6 to 1.98	Drive AF <b>AF</b> using voice coil motor.	1	Constant current ( $\pm 5\%$ )	$\pm 60$	1.3 ( $V_{DD}=1.8V$ )	I <sup>2</sup> C Fm+ compatible	ISRC	✓	with	UCSP30L1A ( $0.77 \times 1.2$ ) $H=0.33$ Max.
<b>New BU64987GWZ</b>	1.6 to 1.98	Drive AF <b>AF</b> using voice coil motor.	1	Constant current ( $\pm 5\%$ )	$\pm 100$	1.3 ( $V_{DD}=1.8V$ )	I <sup>2</sup> C Fm+ compatible	ISRC	✓	with	UCSP30L1A ( $0.77 \times 1.2$ ) $H=0.33$ Max.

### 压电执行器用两线串行(I<sup>2</sup>C-Compatible)接口镜头驱动器

Part No.	Supply Voltage (V)	Applications	ch	Drive System	Driver Output Max. Current (mA)	Driver Output ON Resistance ( $\Omega$ )	Input I/F	Base Clock	UVLO	Temperature Protection	Power Save Function	Back side coating	Package (mm)	
<b>BU64562GWZ</b>	Vcc : 2.3 to 4.8	Drive AF <b>AF</b> using piezo actuator. Drive ZOOM using piezo actuator.	ex.1 ex.2	1 2	FULL ON	400	1.4 ( $V_{cc}=3V$ )	I <sup>2</sup> C Fm compatible	Built-in 15MHz	✓	✓	✓	without	UCSP30L1 ( $1.90 \times 0.77$ ) $H=0.33$ Max.

### 步进电机用并行接口镜头驱动器

Part No.	Supply Voltage (V)	Applications	ch	Drive System	Driver Output Max. Current (mA)	Driver Output ON Resistance ( $\Omega$ )	Input I/F	Input Mode Selection Terminal	Built-In Wave Sloping Comparator	Temperature Protection	Power Save Function	Back side coating	Package (mm)
<b>BD6360GUL</b>	2.3 to 5.5	Drive AF <b>AF</b> using piezo actuator. Drive ZOOM using stepping motor.	ex.1 ex.2	2	FULL ON	400	1.0 ( $V_{cc}=3V, I_o=0.4A$ )	Parallel	✓	✓	✓	with	VCSP50L2 ( $2.1 \times 2.1$ ) $H=0.55$ Max.

**AF**=Auto Focus **ZOOM**=Zoom