



Motor / Actuator Drivers

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DC Brush Motor Drivers

A Motor / Actuator Drivers

7V Max. H-Bridge Drivers									
Part No.	ch	Supply Voltage (V)	Output Current (A)	Input Threshold Voltage(V)		Output ON Resistance (Ω Typ.)	Output Modes	Package	
				H Level	L Level				
BD6210F	1	3.0 to 5.5	0.5	2.0 or more	0.8 or less	1.0	Forward/Reverse/Standby(Ide)/Brake	SOP8	
BD6210HFP			1.0			HRP7			
BD6211F			1.0			SOP8			
BD6211HFP			1.0			HRP7			
BD6212FP			2.0			HSOP25			
BD6212HFP			2.0			HRP7			
18V Max. H-Bridge Drivers									
BD6220F	1	6.0 to 15.0	0.5	2.0 or more	0.8 or less	1.5	Forward/Reverse/Standby(Ide)/Brake	SOP8	
BD6221F			1.0			SOP8			
BD6222FP			2.0			HSOP25			
BD6222HFP			2.0			HRP7			
BD6225FP	2		0.5			1.5		HSOP25	
BD6226FP			1.0			1.5		HSOP25	
36V Max. H-Bridge Drivers									
BD6230F	1	6.0 to 32.0	0.5	2.0 or more	0.8 or less	1.5	Forward/Reverse/Standby(Ide)/Brake	SOP8	
BD6231F			1.0			SOP8			
BD6231HFP			1.0			HRP7			
BD6232FP			2.0			HSOP25			
BD6232HFP			2.0			HRP7			
BD6236FP			2					1.0	
BD6236FM	2.0	HSOP-M28							
BD6237FM	2.0	HSOP-M28							
New BD62105AFVM	0.5	MSOP8							
New BD62110AEFJ	1	8.0 to 28.0	1.0			1.8		HTSOP-J8	
New BD62120AEFJ			2.0			0.65		HTSOP-J8	
Part No.	Supply Voltage (V)	Output Current (A)	Output Current Peak (A)	Circuit Current (mA)	Input Threshold Voltage(V)		Output ON Resistance (Ω)	Package	
BD62210AEFV	8.0 to 28.0	1.0	1.5	2.5	H Level	L Level	1.9	HTSSOP-B28	
BD62220AEFV	8.0 to 28.0	2.0	2.8	2.5	2.0	0.8	0.65	HTSSOP-B28	
40V Max. H-Bridge Drivers									
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
BD16950EFV-C	40	5.5 to 40.0	—	1	—	Available to select High, Low or Hi-Z Output by each Output terminal.	-40 to +125	HTSSOP-B24	YES
BD16938EFV-C	40	6.3 to 32.0	1.0	4 (Half 8ch)	1.4	Available to select High, Low or Hi-Z Output by each Output terminal.	-40 to +125	HTSSOP-B28	YES
BD16939EFV-C	40	6.3 to 32.0	1.0	3 (Half 6ch)	1.35	Available to select High, Low or Hi-Z Output by each Output terminal.	-40 to +125	HTSSOP-B28	YES
New BD16912EFV-C	40	6.0 to 18.0	3.0	1	0.36	Forward/Reverse/Standby/Brake	-40 to +125	HTSSOP-B20	YES
50V Max. H-Bridge Drivers									
Part No.	ch	Supply Voltage (V)	Output Current (A)	Input Threshold Voltage(V)		Output ON Resistance (Ω Typ.)	Output Modes	Package	
New BD63130AFM	1	8.0 to 46.2	3.0	2.0 or more	0.8 or less	0.55	Forward/Reverse/Standby(Ide)/Brake	HSOP-M36	
New BD63150AFM			5.0			0.3		HSOP-M36	
60V Max. H-Bridge Drivers									
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	1.0	1.5 (Half 3ch)	1.81	Available to select High, Low or Hi-Z Output by each Output terminal.	-40 to +125	HTSSOP-B20	YES
BD16922EFV-M	60	8.0 to 36.0	1.0	2	2.25	Forward/Reverse/Standby/Brake	-40 to +110	HTSSOP-B24	YES
H-Bridge Driver High-Current									
Part No.	ch	Supply Voltage (V)	Output Current (A)	Input Threshold Voltage(V)		Output ON Resistance (Ω Typ.)	Output Modes	Package	
BD62321HFP	1	6.0 to 32.0	3.0	2.0 or more	0.8 or less	1.0	Forward/Reverse/Standby(Ide)/Brake	HRP7	



H-Bridge Drivers High-Speed series								
Part No.	ch	Supply Voltage (V)	Output Current (A)	Input Threshold Voltage(V)		Output ON Resistance (Ω Typ.)	Output Modes	Package
				H Level	L Level			
BD65491FV	1	1.8 to 16.0	1.2 Peak 4	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		VQFN024V4040
BD65494MUV	1	2.0 to 9.0	1.0 peak 2.5	2.0 or more	0.7 or less	0.55		VQFN016V3030
BD65496MUV	1	1.8 to 16.0	1.2 peak 5	1.45 or more	0.5 or less	0.35		VQFN024V4040
BD6376GUL	1	2.0 to 9.0	1.0	2.0 or more	0.7 or less	0.45		VCSP50L1
BD6736FV	1	2.0 to 9.0	1.0 peak 3.2	2.0 or more	0.7 or less	0.35		SSOP-B20
BD6735FV	2	2.0 to 8.0	1.0	2.0 or more	0.7 or less	1.0		SSOP-B20
BD63565EFV	2	1.8 to 16.0	1.0	1.45 or more	0.5 or less	0.9		HTSSOP-B20
BD63573NUV	1	2.0 to 16.0	1.2 peak 3.2	1.45 or more	0.5 or less	0.38		VSON010V3030
1.0A Reversible Motor Drivers(Single Motor)								
Part No.	Supply Voltage (V)	Output Current (A)	Input Threshold Voltage(V)		Output Saturation Voltage (V Typ.)	Output Operation Modes	Package	
			H Level	L Level				
BA6287F	4.5 to 15.0	1.0	2.0 or more	0.8 or less	1 (I _o =0.2A)	Forward/Reverse/ Idle/Brake	SOP8	
BA6285FS	4.5 to 15.0	1.0	2.0 or more	0.8 or less	1 (I _o =0.2A)		SSOP-A16	
BA6285AFP-Y	4.5 to 24.0	1.0	2.0 or more	0.8 or less	1 (I _o =0.2A)		HSOP25	
BA6920FP-Y	6.5 to 34.0	1.0	3.0 or more	0.8 or less	2.2 (I _o =0.02A)		HSOP25	
2.0A or More Reversible Motor Driver(Single Motor)								
Part No.	Supply Voltage (V)	Output Current (A)	Input Threshold Voltage(V)		Output Saturation Voltage (V Typ.)	Output Modes	Package	
			H Level	L Level				
BA6219BFP-Y	8 to 18	2.2	3.0 or more	1.0 or less	2.4 (I _o =0.4A)	Forward/Reverse/ Idle/Brake	HSOP25	
1.0A or More Reversible Motor Driver(2 Motors)								
BA6247FP-Y	8 to 18	1.0	3.5 or more	1.0 or less	2.4 (I _o =0.5A)	Forward/Reverse/ Brake	HSOP25	

A

Motor / Actuator Drivers

Stepper Motor Drivers

High Performance, High Reliability 36V Stepper Motor Drivers For PCs, MFPs, Industrial equipments etc.

BD63730EFV																					
BD6387EFV																					
BD6385EFV																					
BD6383EFV																					
BD6389FM																					
BD68720EFV																					
BD68715EFV																					
BD68710EFV																					
BD63725BEFV																					
BD63720AEFV																					
BD63715AEFV																					
BD63710AEFV																					
BD63910MUV																					
BD63920MUV																					

- * 1 : BD6387EFV, BD6385EFV, BD6383EFV and BD6389FM are function-compatible.
- * 2 : BD6387EFV, BD6385EFV and BD6383EFV are all pin-compatible.
- * 3 : BD68720EFV, BD68715EFV and BD68710EFV are function-compatible.
- * 4 : BD68720EFV, BD68715EFV and BD68710EFV are all pin-compatible.
- * 5 : BD63725BEFV, BD63720AEFV, BD63715AEFV and BD63710AEFV are function-compatible.
- * 6 : BD63725BEFV, BD63720AEFV, BD63715AEFV and BD63710AEFV are all pin-compatible.

Part No.	Supply Voltage(V)		Output Current (A)	Circuit Current (mA)	Input Threshold Voltage(V)		Output ON Resistance (Ω)	Package
	Vcc				High Level	Low Level		
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
BD63910MUV	8 to 28		1.0	2.5	2.0	0.8	1.3	VQFN028V5050
BD63920MUV	8 to 28		2.0	2.5	2.0	0.8	0.49	VQFN028V5050

Symbol Key
CLK Control signal input CLK-IN type
PARA Control signal input PARALLEL-IN type
Iomax 0.8A Maximum output current
Iomax 1.0A Maximum output current
Iomax 1.2A Maximum output current
Iomax 1.5A Maximum output current
Iomax 2.0A Maximum output current
Iomax 2.2A Maximum output current
Iomax 2.5A Maximum output current
Iomax 3.0A Maximum output current
FWRW Switch able between forward and reverse
DECAY SW SLOW/FAST/MIX DECADE switching function
Thin PKG Thin package
SMALL SIZE Power PKG Small power package
FUNCTION COMPATIBLE Function-compatible
EASY REPLACEMENT PIN Easy replacement pin compatible with competitor's
1/2STEP Number of step
1/4STEP Number of step
1/8STEP Number of step
Constant-current PWM Constant-current PWM
ONE POWER 1 power supply system due to built-in regulator

Standard 36V Stepping Motor Drivers

BD6395FP													
BD6393FP													
BD68620EFV													
BD68610EFV													
BD6290EFV													
BD63960EFV													
BD63940EFV													
BD63620AEFV													
BD63610AEFV													
BD63801EFV													
BD60223FP													
BD63888AEKV													
BD68888AEKV													
BD63888MUV													

* 1 : The BD6395FP, BD6393FP, and BD6290EFV are all function-compatible.
 * 2 : The BD6395FP and BD6393FP are all pin-compatible.
 * 3 : The BD63620AEFV, BD63610AEFV, and BD63801EFV are all function-compatible.
 * 4 : The BD63960EFV and BD63940EFV are all pin-compatible.

Part No.	Supply Voltage(V)	Output Current (A)	Circuit Current (mA)	Input Threshold Voltage(V)		Output ON Resistance (Ω)	Package
	V _{CC}			High Level	Low Level		
BD6395FP	16 to 28	1.5	3.0	2.0	0.8	1.2	HTSSOP-B54
BD6393FP	16 to 28	1.2	3.0	2.0	0.8	1.5	HTSSOP-B40
BD68620EFV	19 to 28	2.0	1.3	2.0	0.8	0.95	HTSSOP-B40
BD68610EFV	19 to 28	1.0	1.3	2.0	0.8	1.8	HTSSOP-B40
BD6290EFV	19 to 28	0.8	3.0	2.0	0.8	2.8	HSOP-M36
BD63960EFV	19 to 28	1.5	2.7	2.0	0.8	1.1	HTSSOP-B28
BD63940EFV	19 to 28	1.2	2.7	2.0	0.8	1.4	HTSSOP-B28
BD63620AEFV	19 to 28	2.0	1.3	2.0	0.8	0.95	HTSSOP-B28
BD63610AEFV	19 to 28	1.8	1.3	2.0	0.8	1.8	HTSSOP-B28
BD63801EFV	19 to 28	0.8	2.7	2.0	0.8	2.8	HTSSOP-B28
New BD60223FP	8 to 28	1.5	2.5	2.0	0.8	0.55	HSOP25
New BD63888AEKV	8 to 28	1.5	5.0	2.0	0.8	1.0	HTQFP48V
New BD68888AEKV	8 to 28	1.5	5.0	2.0	0.8	1.0	HTQFP48V
New BD63888MUV	8 to 28	1.2	5.0	2.0	0.8	1.0	VQFN036V6060

μ-step 36V Stepper Motor Drivers

BD63860EFV														
BD63847EFV														
BD63843EFV														
BD63510AEFV														
BD63511EFV														
BD63520AEFV														
BD63521EFV														
BD63524AEFV														
BD63525AEFV														

* 1: The BD63847EFV and BD63843EFV are all function-compatible.
* 2: The BD63510AEFV, BD63520AEFV and BD63525AEFV are all function-compatible.
* 3: The BD63511AEFV and BD63521AEFV are all function-compatible.

Part No.	Supply Voltage(V)		Output Current (A)	Circuit Current (mA)	Input Threshold Voltage(V)		Output ON Resistance (Ω)	Package
	V _{CC}	V _M			High Level	Low Level		
BD63860EFV	16 to 28		2.5	4.0	2.0	0.8	0.8	HTSSOP-B28
BD63847EFV	19 to 28		2.0	2.5	2.0	0.8	0.85	HTSSOP-B28
BD63843EFV	19 to 28		1.0	2.5	2.0	0.8	1.9	HTSSOP-B28
BD63510AEFV	8 to 28		1.0	2.5	2.0	0.8	1.75	HTSSOP-B28
BD63511EFV	8 to 28		1.0	2.5	2.0	0.8	1.75	HTSSOP-B28
BD63520AEFV	8 to 28		2.0	2.5	2.0	0.8	0.65	HTSSOP-B28
BD63521EFV	8 to 28		2.0	2.5	2.0	0.8	0.65	HTSSOP-B28
BD63524AEFV	8 to 28		2.5	2.5	2.0	0.8	0.35	HTSSOP-B28
BD63525AEFV	8 to 28		2.5	2.5	2.0	0.8	0.35	HTSSOP-B28

Low Voltage Stepper Motor Drivers For Mini and Handheld Printers

BD6382EFV																
BD6381EFV																
BD6380EFV																

Part No.	Supply Voltage(V)		Output Current (A)	Circuit Current (mA)	Input Threshold Voltage(V)		Output ON Resistance (Ω)	Package
	V _{CC}	V _M			High Level	Low Level		
BD6382EFV	3.0 to 5.5	5.5 to 13.5	0.8	1.6	2.0	0.8	1.2	HTSSOP-B24
BD6381EFV	2.5 to 5.5	6.0 to 13.5	1.2	1.6	2.0	0.8	1.0	HTSSOP-B24
BD6380EFV	2.5 to 5.5	4.0 to 13.5	0.8	1.6	2.0	0.8	1.2	HTSSOP-B24

45V Stepper Motor Drivers

BD6425EFV													
BD6423EFV													
BD6422EFV													

Part No.	Supply Voltage(V)		Output Current (A)	Circuit Current (mA)	Input Threshold Voltage(V)		Output ON Resistance (Ω)	Package
	V _{CC}	V _M			High Level	Low Level		
BD6425EFV	19 to 42		1.5	2.0	2.0	0.8	1.1	HTSSOP-B28
BD6423EFV	19 to 42		1.0	2.0	2.0	0.8	2.0	HTSSOP-B24
BD6422EFV	19 to 42		1.0	2.0	2.0	0.8	2.0	HTSSOP-B24

Symbol Key	Control signal input CLK-IN type	Built-in servo circuit	Control signal input PARALLEL-IN type	Iomax 0.8A	Iomax 1.0A	Iomax 1.2A	Iomax 1.5A	Iomax 2.0A	Iomax 2.5A	Maximum output current	36V MAX	60V MAX	Rated Voltage	120° SLOW	120° PWM	180° PWM	Output power system
	External output FET H-side:Nch/L-side:Nch		External output FET H-side:Pch/L-side:Nch		DMOS output		Built-in FG Amplifier		Built-in hysteresis Amplifier		1 power supply system due to built-in regulator		Built-in thermal shut-down circuit				

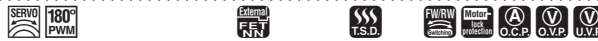
3-Phase Brushless Motor Drivers

3-Phase Brushless Motor Pre-Drivers with Speed Control

BD6762FV



BD63030EKV-C



Part No.	Max. Voltage (V)	Supply Voltage (V)	Operating Temperature (°C)	Circuit Current (mA)	Input Threshold Voltage(V)		External FET Drive Voltage		PWM Frequency (kHz)	Package	
					H Level	L Level	Upper(V)	Lower(V)			
BD6762FV	36	16 to 28	-25 to +75	17	2.2	0.8	V _{CC} +6.8	10.8	16	HTSSOP-B24	
Part No.	Max. Voltage (V)	Supply Voltage (V)	Operating Temperature (°C)	Circuit Current (mA)	Input Threshold Voltage(V)		External FET Drive Voltage V _{CC} =6.5V		PWM Frequency (kHz)	Package	Automotive Grade AEC-Q100
					H Level	L Level	Upper(V)	Lower(V)			
BD63030EKV-C	50	6.5 to 18.0	-40 to +125	18	3.8	1.9	2×V _{CC} -1.0	5.5	20	HTQFP64AV	YES

New

3-Phase Brushless Motor Driver with Speed Control

BD67929EFV



Part No.	Max. Voltage (V)	Supply Voltage (V)	Operating Temperature (°C)	Circuit Current (mA)	Input Threshold Voltage(V)		External FET Drive Voltage(V)		PWM Frequency (kHz)	Package
					H Level	L Level	Upper	Lower		
BD67929EFV	36	19 to 28	-25 to +85	4.0	3.0	1.5	—	—	200	HTSSOP-B28

3-Phase Brushless Motor Pre-Drivers

BD6761FS



BD63001AMUV



BD63002AMUV



BD16805FV-M



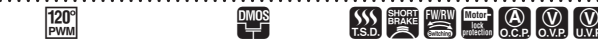
Part No.	Max. Voltage (V)	Supply Voltage (V)	Operating Temperature (°C)	Circuit Current (mA)	Input Threshold Voltage(V)		External FET Drive Voltage(V)		PWM Frequency (kHz)	Package	
					H Level	L Level	Upper	Lower			
BD6761FS	36	16 to 28	-35 to +75	15.0	2.2	0.8	V _{CC} +6	10.5	15	SSOP-A32	
BD63001AMUV	33	4.5 to 5.5/6 to 28	-40 to +85	2.5	2.0	0.8	V _{CC} -0.2	9.5	20	VQFN024V4040	
BD63002AMUV	33	8.0 to 26.4	-40 to +85	2.5	2.0	0.8	V _{CC} +7	5.0	External IN	VQFN028V5050	
Part No.	Max. Voltage (V)	Supply Voltage (V)	Operating Temperature (°C)	Circuit Current (mA)	Input Threshold Voltage(V)		External FET Drive Voltage(V)		PWM Frequency (kHz)	Package	Automotive Grade AEC-Q100
					H Level	L Level	Upper	Lower			
BD16805FV-M	60	8 to 18	-40 to +110	15.2	3.0	1.0	2×V _{CC} -0.5	8.0	25	SSOP-B40	YES

3-Phase Brushless Motor Drivers

BD63005AMUV



BD63006MUV



BD63007MUV



BD63015EFV



BD63035EFV-M



Part No.	Max. Voltage (V)	Supply Voltage (V)	Output Current (A)	Operating Temperature (°C)	Circuit Current (mA)	Input Threshold Voltage(V)		Output ON Resistance (Ω)	Package	
						H Level	L Level			
BD63005AMUV	33	10 to 28	2.0	-25 to +85	4.4	2.0	0.8	0.17	VQFN040V6060	
BD63006MUV	33	8 to 28	1.5	-40 to +85	4.4	—	—	0.8	VQFN024V4040	
BD63007MUV	33	8 to 28	3.0	-25 to +85	4.4	2.0	0.8	0.17	VQFN040V6060	
BD63015EFV	36	8 to 28	1.5	-40 to +105	8.0	2.0	0.8	0.6	HTSSOP-B20	
Part No.	Max. Voltage (V)	Supply Voltage (V)	Operating Temperature (°C)	Circuit Current (mA)	Input Threshold Voltage(V)		Output ON Resistance (Ω)	PWM Frequency (kHz)	Package	Automotive Grade AEC-Q100
					H Level	L Level				
BD63035EFV-M	36	8 to 28	-40 to +105	8.0	2.0	0.8	0.6	22.7	HTSSOP-B20	YES

New



Fan Motor Drivers

5V Single-Phase Full-wave Fan Motor Drivers

BH6766FVM						
BD6965NUX						
BD6966NUX						
BU6909AGFT	 					
BU69090NUX	 					

Part No.	Supply Voltage (V)	I _o Max. (mA)	Power Transistor	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	VSON1010X3030
BU6909AGFT	1.8 to 5.5	800	CMOS	Upper and Lower 0.16(I _o =200mA)	Direct PWM	Include Hall sensor	1:10	TSSOF6
BU69090NUX	1.8 to 5.5	800	CMOS	Upper and Lower 0.16(I _o =200mA)	Direct PWM	Include Hall sensor	1:10	VSON008X2030

Standard Single-Phase Full-wave Fan Motor Drivers

BD6981FVM						
BD6982FVM						
BD6967FVM						
BD6968FVM						
BD6962FVM						
BD6964FVM						
BD6961F						
BD6964F						
BD69830FV						

Part No.	Supply Voltage (V)	I _o Max. (mA)	Power Transistor	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

Symbol Key		Power supply compatible		PRE DRIVER	This is an indication for the amount of current that can flow into a motor running at fixed speed.		Include Hall sensor		Small mount type		RPM pulse signal output	
		Drive method with hall sensor for detecting the rotor position		Soft switching		Output power system		Built-in hall element power supply voltage		Rotational speed control possible		External capacitor for detecting motor lock not necessary

Multifunction Single-Phase Full-wave Fan Motor Drivers

BD6971FV	12V MIN 350 CLASS	FG FULL SOFT S/W HALL LOCK LOCK DOG ALARM MIN rpm T.S.D. IO LIMIT
BD6994FV	12V MIN 350 CLASS	FG FULL SOFT S/W HALL LOCK LOCK DOG ALARM MIN rpm T.S.D.
BD6995FV	12V MIN 400 CLASS	FG FULL SOFT S/W HALL LOCK LOCK DOG ALARM MIN rpm T.S.D. IO LIMIT
BD61243FV	12V MIN 450 CLASS	FG FULL SOFT S/W HALL LOCK LOCK DOG ALARM MIN rpm T.S.D. IO LIMIT
BD69730FV	12V MIN PRE DRIVER	FG FULL SOFT S/W HALL LOCK LOCK DOG ALARM MIN rpm T.S.D. IO LIMIT SOFT START
BD69740FV	12V MIN PRE DRIVER	SOFT S/W HALL LOCK LOCK DOG ALARM MIN rpm T.S.D. IO LIMIT SOFT START
BD61245EFV	12V MIN 800 CLASS	FG FULL SOFT S/W HALL LOCK LOCK DOG ALARM MIN rpm T.S.D. IO LIMIT SOFT START
BD61250MUV	24V MIN PRE DRIVER Small Pkg	FG FULL SOFT S/W HALL LOCK LOCK DOG ALARM MIN rpm T.S.D. IO LIMIT SOFT START
BD61246EFV	12V MIN 800 CLASS	SOFT S/W HALL LOCK LOCK DOG ALARM MIN rpm T.S.D. IO LIMIT SOFT START
BD61247NUX	12V MIN 400 CLASS Small Pkg	FG FULL SOFT S/W HALL LOCK LOCK DOG ALARM T.S.D.
BD61251FV	12V MIN PRE DRIVER	FG FULL SOFT S/W HALL LOCK LOCK DOG ALARM T.S.D. IO LIMIT SOFT START

Part No.	Supply Voltage (V)	Io 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(Io=200mA)	DC/Direct PWM	1.3	1:10	SSOP-B14
BD6994FV	4.5 to 17.0	1,200	DMOS	Upper and Lower 0.6(Io=400mA)	DC/Direct PWM	1.25	1:10	SSOP-B16
BD6995FV	4.3 to 17.0	1,200	DMOS	Upper and Lower 0.6(Io=400mA)	DC	1.25	1:10	SSOP-B16
BD61243FV	5.5 to 16.0	1,200	DMOS	Upper and Lower 0.4(Io=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
BD61245EFV	4.0 to 16.0	1,800	DMOS	Upper and Lower 0.2(Io=400mA)	DC/Direct PWM	—	1:10	HTSSOP-B16
BD61250MUV	4.5 to 36.0	10	Pre-Driver	—	DC/Direct PWM	—	1:20	VQFN024V4040
New BD61246EFV	4.0 to 16.0	1,800	DMOS	Upper and Lower 0.2(Io=400mA)	DC/Direct PWM	—	1:10	HTSSOP-B16
New BD61247NUX	4.5 to 16.0	1,200	DMOS	Upper and Lower 0.2(Io=200mA)	Direct PWM	—	1:10	VSON010X3030
New BD61251FV	4.5 to 16.0	10	Pre-Driver	—	Direct PWM	—	1:20	SSOP-B16

2-Phase Half-wave Fan Motor Drivers

BD6701F	24V MIN 400 CLASS	FG FULL LOCK LOCK DOG ALARM T.S.D. Diode
BA6406F	24V MIN PRE DRIVER	LOCK LOCK DOG ALARM
BA6506F	24V MIN PRE DRIVER	FG FULL LOCK

Part No.	Supply Voltage (V)	Io Max. (mA)	Power Transistor	Output Saturation Voltage (V)	Speed Control	Hall Bias Voltage (V)	Zenner Diode Clamp Voltage (V)	Output Clamp Voltage (V)	Lock Time Ratio	Package
BD6701F	6.0 to 28.0	800	DMOS	0.3 (Io=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

3-Phase Full-wave Fan Motor Drivers

BD67173NUX	5V MIN 400 CLASS Small Pkg	SENSOR LESS DRIVE PWM 150° FG FULL T.S.D. LOCK LOCK DOG ALARM
BD6326NUX	5V MIN 400 CLASS Small Pkg	SENSOR LESS DRIVE PWM 180° FG FULL T.S.D. LOCK LOCK DOG ALARM
BD63441AFU	12V MIN PRE DRIVER	SENSOR LESS DRIVE PWM 150° FG FULL T.S.D. LOCK LOCK DOG ALARM IO LIMIT SOFT START MIN rpm
BD63251MUV	12V MIN PRE DRIVER Small Pkg	PWM 180° FG FULL T.S.D. LOCK LOCK DOG ALARM IO LIMIT SOFT START MIN rpm

Part No.	Supply Voltage (V)	Io Max. (mA)	Power Transistor	Output Saturation Voltage (V)	Speed Control	Hall Bias Voltage (V)	Lock Time Ratio	Package
BD67173NUX	2.2 to 5.5	700	CMOS	Upper and Lower 0.25(Io=250mA)	Direct PWM	—	1:5	VSON010X3030
BD6326NUX	2.2 to 5.5	700	CMOS	Upper and Lower 0.25(Io=250mA)	Direct PWM	—	1:5	VSON010X3030
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

Motor lock detection function
 Lock alarm signal output
 Minimum rotational speed setting
 Motor startup possible low-duty
 Built-in thermal shut-down circuit
 Output current limit can be set
 Soft start
 Built-in diode for preventing damage due to backward connection

Motor / Actuator Drivers

3-Phase Brushless Fan Motor Drivers For Household Appliances

BM6241FS									
BM6242FS									
BM6243FS									
BM6244FS									
BM6245FS									
BM6246FS									
BM6247FS									
BM6248FS									
BM6249FS									

A
Motor / Actuator Drivers

Part No.	Control	Output Device	Rated Voltage (V)	Output Current (A)	Output ON Resistance(Ω)	Diode Forward Voltage(V)	Package
New BM6241FS	6 inputs	MOSFET	250	2.0	0.9	0.9	SSOP-A54_23
New BM6242FS	6 inputs	MOSFET	600	1.5	2.7	1.1	SSOP-A54_23
New BM6243FS	6 inputs	MOSFET	600	2.5	1.7	1.1	SSOP-A54_23
New BM6244FS	120°	MOSFET	250	2.0	0.9	0.9	SSOP-A54_36
New BM6245FS	120°	MOSFET	600	1.5	2.7	1.1	SSOP-A54_36
New BM6246FS	120°	MOSFET	600	2.5	1.7	1.1	SSOP-A54_36
New BM6247FS	180°(Sinusoidal)	MOSFET	250	2.0	0.9	0.9	SSOP-A54_36
New BM6248FS	180°(Sinusoidal)	MOSFET	600	1.5	2.7	1.1	SSOP-A54_36
New BM6249FS	180°(Sinusoidal)	MOSFET	600	2.5	1.7	1.1	SSOP-A54_36

3-Phase Brushless Fan Motor Controllers For Household Appliances

Part No.	Supply Voltage (V)	Commutation Logic	Control Voltage Input (V)	Phase Control (deg.)	FG Conversion Ratio	Package
New BD62017AFS	10.0 to 18.0	180°(Sinusoidal)	2.1 to 5.4	0 to + 40	15:12	SSOP-A24
New BD62018AFS	10.0 to 18.0	180°(Sinusoidal)	2.1 to 5.4	0 to + 40	12:12	SSOP-A24

Fractional Pulse Rate Converters

Part No.	Supply Voltage (V)	Circuit Current (mA)	Input Frequency (kHz)	Conversion Ratio	Package
New BU6821G	4.5 to 5.5	0.5	0.005 to 5	15:12	SSOP5
New BU6823G	4.5 to 5.5	0.5	0.005 to 5	21:12	SSOP5

Driver for ODD

1ch System Motor Driver ICs Wide Application

Part No.	Power Supply (V)	Dynamic Range of Driver Output (V)	I/F Amplifire	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 _{CC} =8V, R _L =500mA)	—	—	—	—	—	✓	✓	SOP8
BH6578FVM	4.5 to 5.5	4.5(V _{CC} =5V, R _L =500mA)	—	—	—	—	—	✓	—	MSOP8

4ch System Motor Driver ICs Basic type for CD player

Part No.	Power Supply (V)	I/F	FOCUS TILT (ch)	TRACKING (ch)	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	1	1	DC Select input	DC	DC	—	—	Variable voltage ×1	—	HTSSOP-B24	—
BD8229EFV	4.5 to 14.0	Analog & PWM	1	1	DC Select input	DC	DC	—	—	—	1 input 1 output	HTSSOP-B24	—
BD8266EFV-M	4.5 to 10.0	Analog & PWM	1	1	DC Select input	DC	DC	—	Self off	—	—	HTSSOP-B24	YES
BD8263EFV-M	4.5 to 10.0	Analog & PWM	1	1	DC Select input	DC	DC	✓	—	—	—	HTSSOP-B28	YES

5ch System Motor Driver ICs Loading Channel Added

Part No.	Power Supply (V)	I/F	FOCUS TILT (ch)	TRACKING (ch)	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	1	1	DC	DC	DC	—	—	—	HTSSOP-B24	YES
BD8203EFV	4.5 to 14.0	Analog & PWM	1	1	DC	DC	DC	—	—	Variable voltage ×1 / 5V Fixed ×1	HTSSOP-B40	—

6ch to 9ch System Motor Driver ICs Basic type for DVD Player, Blu-ray

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

Symbol Key			Rated Voltage				Maximum output current		Built-in thermal shut-down circuit		Built-in under voltage lock out circuit		Built-in over current protection circuit		Output current limit can be set
		External capacitor for detecting motor lock not necessary			RPM pulse signal output										

System Motor Driver IC for Half Height Drives(Sensorless) Space Saving Type										
Part No.	Supply Voltage (V)	ch	Output System	Output (Ω)	Output Gain	Under Voltage Protection	Overvoltage Protection	Input Abnormality Protection	Temperature Protection	Package
BD7763EFV	4.3 to 5.5	1 to 3	PWM	1.5	17.5dB	✓	—	✓	✓	HTSSOP-B54
		4, 5	PWM	1.3	17.5dB					
		6, 7	PWM	2.2	1.15A/V					
	10.8 to 13.2	8	PWM	1.0	1.15A/V					
		9	PWM	1.5	—					

System Motor Driver ICs for Slim Drives(3 Sensors) Basic Type										
BH5510KV	4.0 to 5.5	1 to 3	PWM	1.3	14dB	✓	✓	✓	✓	VQFP48C
		4, 5	PWM	1.5	14dB					
		6	PWM	0.6	1A/V or 0.2A/V					
BH5510KVT	4.0 to 5.5	1 to 3	PWM	1.3	14dB	✓	✓	✓	✓	TQFP48V
		4, 5	PWM	1.5	14dB					
		6	PWM	0.6	1A/V or 0.2A/V					
BH5511KV	4.0 to 5.5	1 to 3	PWM	1.3	17.5dB/8.0dB	✓	✓	✓	✓	VQFP48C
		4, 5	PWM	1.5	17.5dB					
		6	PWM	0.6	0.5A/V or 0.33A/V or 0.17A/V					

Drivers for Printer

3-Phase Brushless Motor Driver for Polygonal Mirrors For LBP, PPC										
Part No.	Power Supply (V)	Output Current (A)	Circuit Current (mA)	Input Threshold Voltage(V)		Current Limit Detect Voltage (V)	Output ON Resistance (Ω)	Circuit Current When Motor Stop (mA)	PWM Frequency (kHz)	Package
				H Level	L Level					
BD67929EFV	19.0 to 28.0	2.5	4.0	3.0	1.5	0.5	1.35 (I _o =1.0A)	1.0	200	HTSSOP-B28

Motor Drivers with Brush for Printers										
Part No.	Supply Voltage (V)	Output Current (A)	Output Current Peak (A)	Circuit Current (mA)	Input Threshold Voltage(V)		Output ON Resistance (Ω)	Package		
					H Level	L Level				
BD62210AEFV	8.0 to 28.0	1.0	1.5	2.5	2.0	0.8	1.9	HTSSOP-B28		
BD62220AEFV	8.0 to 28.0	2.0	2.8	2.5	2.0	0.8	0.65	HTSSOP-B28		
New BD63130AFM	8.0 to 46.2	3.0	5.0	2.5	2.0	0.8	0.55	HSOP-M36		
New BD63150AFM	8.0 to 46.2	5.0	6.0	2.5	2.0	0.8	0.3	HSOP-M36		

Bipolar Stepper Motor Drivers for Paper Feed/Carriage For LBP, PPC, Scanner, Photo, Printer, FAX, IJP Please Refer to Page A70 to A72 General Purpose ICs for The Other Stepper Motor Driver Lineup										
Part No.	Power Supply(V)	Output Current (A)	Circuit Current (mA)	Input Threshold Voltage(V)		Output ON Resistance (Ω)	Package			
	V _{cc}			High Level	Low Level					
BD63801EFV	19.0 to 28.0	0.8	2.7	2.0	0.8	2.8	HTSSOP-B24			
BD68715EFV	19.0 to 28.0	1.5	2.0	2.0	0.8	0.95	HTSSOP-B28			
BD63715AEFV	19.0 to 28.0	1.5	2.0	2.0	0.8	0.95	HTSSOP-B28			

3-Phase Brushless Motor Pre-Drivers for Paper Feed For LBP, PPC										
Part No.	Max. Voltage (V)	Power Supply (V)	Operating Temperature (°C)	Circuit Current (mA)	Input Threshold Voltage(V)		External Threshold Voltage(V)		PWM Frequency (kHz)	Package
					H Level	L Level	Upper	Lower		
BD6761FS	36	16.0 to 28.0	-35 to +75	15.0	2.2	0.8	V _{cc} +6	10.5	15	SSOP-A32
BD6762FV	36	16.0 to 28.0	-25 to +75	17.0	2.2	0.8	V _{cc} +6.8	10.8	16	SSOP-B40

3-Phase Brushless Motor Driver for Polygonal Mirrors For LBP, PPC : Current limit value is calculated by dividing current limit voltage by RNF resistance which is to detect the output current.
 Motor Drivers with Brush for Printers : The BD62210AEFV and BD62220AEFV are all pin-compatible.

Driver for Camera

5ch System Lens Driver for Cameras										
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			
BD6758KN	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=Max.0.95	

6ch System Lens Drivers for Cameras										
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			
BD6373GW	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=Max.0.85	
BD6753KV	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=Max.1.60	

Single and Dual-Channel Lens Drivers for SLRs(Single Lens Reflex)

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 (ns)	Control Frequency (kHz)(Max.)	Package (mm)
				Cleaner	AF	Zoom	Iris	Shutter				
BD65492MUV	2	1.8 to 16.0	1.0	ex. —	STM(2ch) FULL ON 0.9	—	—	—	200ns (Including 80ns to Prevent from overlap current.)	80	500	VQFN024V4040 4.0×4.0, H=Max.1.0
BD6735FV	2	2.0 to 8.0	1.0	ex. —	—	—	STM(2ch) FULL ON 1.0	—	300ns (Including 90ns to Prevent from overlap current.)	100	100	SSOP-B20 6.5×6.4, H=Max.1.25
BD6376GUL	1	2.0 to 9.0	1.0	ex. —	—	DCM(1ch) FULL ON 0.45	—	—	200ns (Including 80ns to Prevent from overlap current.)	60	200	VCSP50L1 1.6×1.6, H=Max.0.55
BD65491FV	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.)	50	500	SSOP-B16 6.5×5.0, H=Max.1.25
BD6736FV	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.)	100	100	SSOP-B20 6.5×6.4, H=Max.1.25
BD65499MUV	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.)	50	300	VQFN028V5050 5.0×5.0, H=Max.1.0
BD65494MUV	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.)	60	200	VQFN016V3030 3.0×3.0, H=Max.1.0
BD65496MUV	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.)	50	500	VQFN024V4040 4.0×4.0, H=Max.1.0

STM : Stepping motor, DCM : DC motor, VCM : Voice coil motor("Drive method examples of actuator" are recommendation. Another types may be evaluated.)

μ-step System Lens Drivers for Cameras

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	μ-step Resolution	Package (mm)	
			AF	Zoom	Iris	Shutter	Others				
BU24020GU	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	1024	VCSP85H2 2.6×2.6, H=Max.1.0	
			ex. 2	—	DCM(3ch) FULL ON(PWM) 1.5	VCM(4ch) FULL ON(PWM) 1.5	—				
BU24033GW	1.62 to 3.6 (I/O) 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	1024	UCSP75M3 3.0×3.0, H=Max.0.85	
			ex. 2	—	DCM(5ch) FULL ON (PWM+Speed control) 1.0	VCM(3ch) FULL ON(PWM) 1.5					DCM(4ch) FULL ON(PWM) 1.5
BU24035GW	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	1024	UCSP75M3 3.1×3.1, H=Max.0.85	
			ex. 2	—	DCM(3ch) FULL ON (PWM+Speed control) 1.5	VCM(5ch) FULL ON(PWM)/ constant current 1.0					VCM(4ch) FULL ON(PWM) 1.5
BU24036MWV	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	1024	UQFN040V5050 5.0×5.0, H=Max.1.0	
			ex. 2	—	DCM(3ch) FULL ON (PWM+Speed control) 1.5	VCM(5ch) FULL ON(PWM)/ constant current 1.0					VCM(4ch) FULL ON(PWM) 1.5
BU24038GW	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	STM(5, 6ch) μ-step(class-D) 1.5	VCM(8ch) FULL ON(PWM) 1.5	VCM(9ch) constant current 1.0	3-wire serial	1024	UCSP75M3 3.8×3.8, H=Max.0.85
			ex. 2	—	STM(5, 6ch) μ-step(class-D) 1.5	VCM(3ch) FULL ON (PWM) 1.5	VCM(4ch) FULL ON (PWM) 1.5				

STM : Stepping motor, DCM : DC motor, VCM : Voice Coil Motor("Drive method examples of actuator" are recommendation. Another types may be evaluated.)

A Motor / Actuator Drivers

Mobile Phone Module Drivers

Parallel Interface Lens Driver for Voice Coil Motors													
Part No.	Supply Voltage (V)	Applications	ch	Drive System	Driver Output Max. Current (A)	Driver Output ON Resistance (Ω)	Input I/F	Input Mode Selection Terminal	Current Sense Resistor	Temperature Protection	Power Save Function	Back side coating	Package (mm)
BD6369GUL	2.5 to 5.5	Drive AF using voice coil motor	1	Constant voltage (±5%)	400	0.8 (V _{cc} =5V, I _o =0.4A)	Parallel	✓	—	✓	✓	with	VCSP50L2 2.1×2.1, H=Max.0.55
2-wire Serial(I ² C-compatible) Interface Lens Drivers for Uni-directional Voice Coil Motors													
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)		
BU64241GWZ	2.3 to 4.8	Drive AF using voice coil motor	0.25	Constant current (±10%)	130	0.15 (V _{cc} =3V, I _o =100mA)	I ² C Fm compatible	ISRC	✓	without	UCSP30L1 1.3×0.77, H=Max.0.33		
BU64243GWZ	2.3 to 4.8	Drive AF using voice coil motor	0.25	Constant current (±10%)	130	0.15 (V _{cc} =3V, I _o =100mA)	I ² C Fm compatible	ISRC	✓	with	UCSP35L1 0.77×1.3, H=Max.0.40		
BU64244GWZ	2.3 to 4.8	Drive AF using voice coil motor	0.25	Constant current (±10%)	130	0.15 (V _{cc} =3V, I _o =100mA)	I ² C Fm compatible	ISRC	✓	with	UCSP35L1 0.77×1.3, H=Max.0.36		
New BU64249GWX	2.3 to 4.8	Drive AF using voice coil motor	0.25	Constant current (±10%)	130	0.15 (V _{cc} =3V, I _o =100mA)	I ² C Fm compatible	ISRC	✓	without	UCSP16X1 1.3×0.77, H=Max.0.2		
BU64291GWZ	2.3 to 4.8	Drive AF using voice coil motor	0.5	Constant current (±5%)	100	0.25 (V _{cc} =3V, I _o =100mA)	I ² C Fm compatible	ISRC	✓	without	UCSP30L1 0.77×1.37, H=Max.0.33		
BU64980AGWZ	2.3 to 4.8	Drive AF using voice coil motor	0.25	Constant current (±5%)	100	0.25 (V _{cc} =3V, I _o =100mA)	I ² C Fm+ compatible	ISRC	✓	without	UCSP25L1 0.72×1.13, H=Max.0.30		
BU64981AGWZ	2.3 to 4.8	Drive AF using voice coil motor	0.25	Constant current (±5%)	100	0.25 (V _{cc} =3V, I _o =100mA)	I ² C Fm+ compatible	ISRC	✓	with	UCSP30L1A 0.72×1.13, H=Max.0.33		
2-wire Serial(I ² C-compatible) Interface Lens Drivers for Bi-directional Voice Coil Motors													
Part No.	Supply Voltage (V)	Applications	ch	Drive System	Driver Output Max. Current (A)	Driver Output ON Resistance (Ω)	Input I/F	Ringing Compensation	Temperature Protection	Back side coating	Package (mm)		
BU64295GWZ	2.3 to 4.8	Drive AF using voice coil motor	1	Constant current (±5%)	±100	2.0 (V _{DD} =3V)	I ² C Fm compatible	ISRC	✓	without	UCSP30L1 0.77×1.13, H=Max.0.33		
BU64296GWX	2.3 to 4.8	Drive AF using voice coil motor	1	Constant current (±5%)	±100	2.0 (V _{DD} =3V)	I ² C Fm compatible	ISRC	✓	without	UCSP16X1 0.77×1.2, H=Max.0.20		
BU64297GWZ	2.3 to 4.8	Drive AF using voice coil motor	1	Constant current (±5%)	±100	2.0 (V _{DD} =3V)	I ² C Fm compatible	ISRC	✓	with	UCSP35L1 0.77×1.2, H=Max.0.36		
New BU64253GWZ	2.5 to 4.5	Drive AF using voice coil motor	1	Constant current (±5%)	±100	3.2 (V _{DD} =3V)	I ² C Fm compatible	ISRC	✓	with	UCSP30L1A 0.72×1.13, H=Max.0.33		
BU64985GWZ	1.6 to 1.98	Drive AF using voice coil motor	1	Constant current (±5%)	±60	1.3 (V _{DD} =1.8V)	I ² C Fm+ compatible	ISRC	✓	with	UCSP35L1 0.77×1.2, H=Max.0.36		
BU64987GWZ	1.6 to 1.98	Drive AF using voice coil motor	1	Constant current (±5%)	±100	1.3 (V _{DD} =1.8V)	I ² C Fm+ compatible	ISRC	✓	with	UCSP35L1 0.77×1.2, H=Max.0.36		
2-wire Serial(I ² C-compatible) Interface Lens Driver for Piezo Actuators													
Part No.	Supply Voltage (V) V _{cc}	Applications	ch	Drive System	Driver Output Max. Current (mA)	Driver Output ON Resistance (Ω)	Input I/F	Base Clock	Temperature Protection	Power Save Function	Back side coating	Package (mm)	
BU64562GWZ	2.3 to 4.8	ex.1 Drive AF using piezo actuator ex.2 Drive Zoom using piezo actuator	1	FULL ON	500	1.4 (V _{cc} =3V)	I ² C Fm compatible	Built-in 15MHz	✓	✓	without	UCSP30L1 1.90×0.77, H=Max.0.33	
Parallel Interface Lens Driver for Stepping Motors													
Part No.	Supply Voltage (V)	Applications	ch	Drive System	Driver Output Max. Current (mA)	Driver Output ON Resistance (Ω)	Input I/F	Input Mode Selection Terminal	Built-In Wave Sloping Comparator	Temperature Protection	Power Save Function	Back side coating	Package (mm)
BD6360GUL	2.3 to 5.5	ex.1 Drive AF using piezo actuator ex.2 Drive Zoom using piezo actuator	2	FULL ON	500	1.0 (V _{cc} =3V, I _o =0.4A)	Parallel	✓	✓	✓	✓	with	VCSP50L2 2.1×2.1, H=Max.0.55

Motor / Actuator Drivers

