2023 Edition

By Category PDF

Category Motor/Actuator Drivers

ICs

Motor/Actuator Drivers

Motor/Actuator Drivers

DC Brush Motor Drivers

7V Max H-Bridge Drivers

Part No.	ch	Supply Voltage (V)	Output Current (A)	Input Threshold Voltage (V)		Output ON Resistance (Typ) (Ω)	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 (Idle)/ Brake	SOP8
BD6210HFP								HRP7
BD6211F			1.0			1.0		SOP8
BD6211HFP								HRP7
BD6212FP			2.0			0.5		HSOP25
BD6212HFP								HRP7

18V Max H-Bridge Drivers

Part No.	ch	Supply Voltage (V)	Output Current (A)	Input Threshold Voltage (V)		Output ON Resistance (Typ) (Ω)	Output Modes	Package
				H Level	L Level			
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								HRP7
BD6225FP	2		0.5			1.5		HSOP25
BD6226FP			1.0			1.5		HSOP25

36V Max H-Bridge Drivers

Part No.	ch	Supply Voltage (V)	Output Current (A)	Input Threshold Voltage (V)		Output ON Resistance (Typ) (Ω)	Output Modes	Package
				H Level	L Level			
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								HRP7
BD6232FP			2.0			1.0		HSOP25
BD6232HFP								HRP7
BD6236FP	2		1.0			1.5		HSOP25
BD6236FM								HSOP-M28
BD6237FM			2.0			1.0		HSOP-M28
BD62105AFVM	1	8.0 to 28.0	0.5			1.8		MSOP8
BD62110AEFJ			1.0					HTSOP-J8
BD62120AEFJ			2.0			0.65		HTSOP-J8
BD62130AEFJ			3.0			0.35		HTSOP-J8
BD62210AEFV	2		1.0			1.9		HTSSOP-B28
BD60203EFV			1.7			0.65		HTSSOP-B24
BD62220AEFV			2.0					HTSSOP-B28
BD62221MUV	2	8.0 to 28.0	2.0			0.55		VQFN032V5050

40V Max H-Bridge Drivers

Part No.	ch	Supply Voltage (V)	Output Current (A)	Output Modes	Output ON Resistance (Upper + Lower) (Typ) (Ω)	Operating Temperature (°C)	Package	ComfySIL™ Functional Safety*1	Automotive Grade AEC-Q100
BD16950EFV-C	1	5.5 to 40.0	—	Available to select High, Low or Hi-Z Output by each Output terminal.	—	−40 to +125	HTSSOP-B24	FSs	YES
BD16939AEFV-C	3 (Half 6ch)	6.3 to 32.0	1.0	Available to select High, Low or Hi-Z Output by each Output terminal.	1.35	−40 to +125	HTSSOP-B28	FSs	YES
BD16938AEFV-C	4 (Half 8ch)	6.3 to 32.0	1.0	Available to select High, Low or Hi-Z Output by each Output terminal.	1.4	−40 to +125	HTSSOP-B28	—	YES
BD16912EFV-C	1	6.0 to 18.0	3.0	Forward/Reverse/ Standby/Brake	0.36	−40 to +125	HTSSOP-B20	FSs	YES

50V Max H-Bridge Drivers

Part No.	ch	Supply Voltage (V)	Output Current (A)	Input Threshold Voltage (V)		Output ON Resistance (Typ) (Ω)	Output Modes	Package
				H Level	L Level			
BD63130AFM	1	8.0 to 46.2	3.0	2.0 or more	0.8 or less	0.55	Forward/ Reverse/ Standby (Idle)/ Brake	HSOP-M36
BD63150AFM			5.0			0.3		HSOP-M36
BD64220EFV	2		2.0			0.65		HTSSOP-B28

H-Bridge Driver High-Current

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

*1 For more information about "ComfySIL™ Functional Safety", please refer to the reverse side of the cover.

DC Brush Motor Drivers

H-Bridge Drivers High-Speed series

Part No.	ch	Supply Voltage (V)	Output Current (A)	Input Threshold Voltage (V)		Output ON Resistance (Typ) (Ω)	Output Modes	Package
				H Level	L Level			
BD6736FV	1	2.0 to 9.0	1.0 peak 3.2	2.0 or more	0.7 or less	0.35	Forward/Reverse/ Standby (Idle)/ Brake	SSOP-B20
BD6376GUL	1	2.0 to 9.0	1.0	2.0 or more	0.7 or less	0.45		VCSP50L1
BD65494MUV	1	2.0 to 9.0	1.0 peak 2.5	2.0 or more	0.7 or less	0.55		VQFN016V3030
BD63576NUX	1	2.0 to 10.0	1.2 peak 3.2	V_{CC}×0.7 or more	V_{CC}×0.3 or less	0.55		VSON008X2020
BD65491FV	1	1.8 to 16.0	1.2 Peak 4	1.45 or more	0.5 or less	0.35		SSOP-B16
BD65496MUV	1	1.8 to 16.0	1.2 peak 5	1.45 or more	0.5 or less	0.35		VQFN024V4040
BD63573NUV	1	2.0 to 16.0	1.2 peak 3.2	1.45 or more	0.5 or less	0.38		VSON010V3030
BD6735FV	2	2.0 to 8.0	1.0	2.0 or more	0.7 or less	1.0		SSOP-B20
BD63572MUV	2	2.0 to 9.0	1.0 peak 2.5	1.85 or more	0.9 or less	0.4		VQFN20PV3535
BD63565EFV	2	1.8 to 16.0	1.0	1.45 or more	0.5 or less	0.9		HTSSOP-B20
BD65492MUV	2	1.8 to 16.0	1.0	1.45 or more	0.5 or less	0.9		VQFN024V4040

Stepper Motor Drivers

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

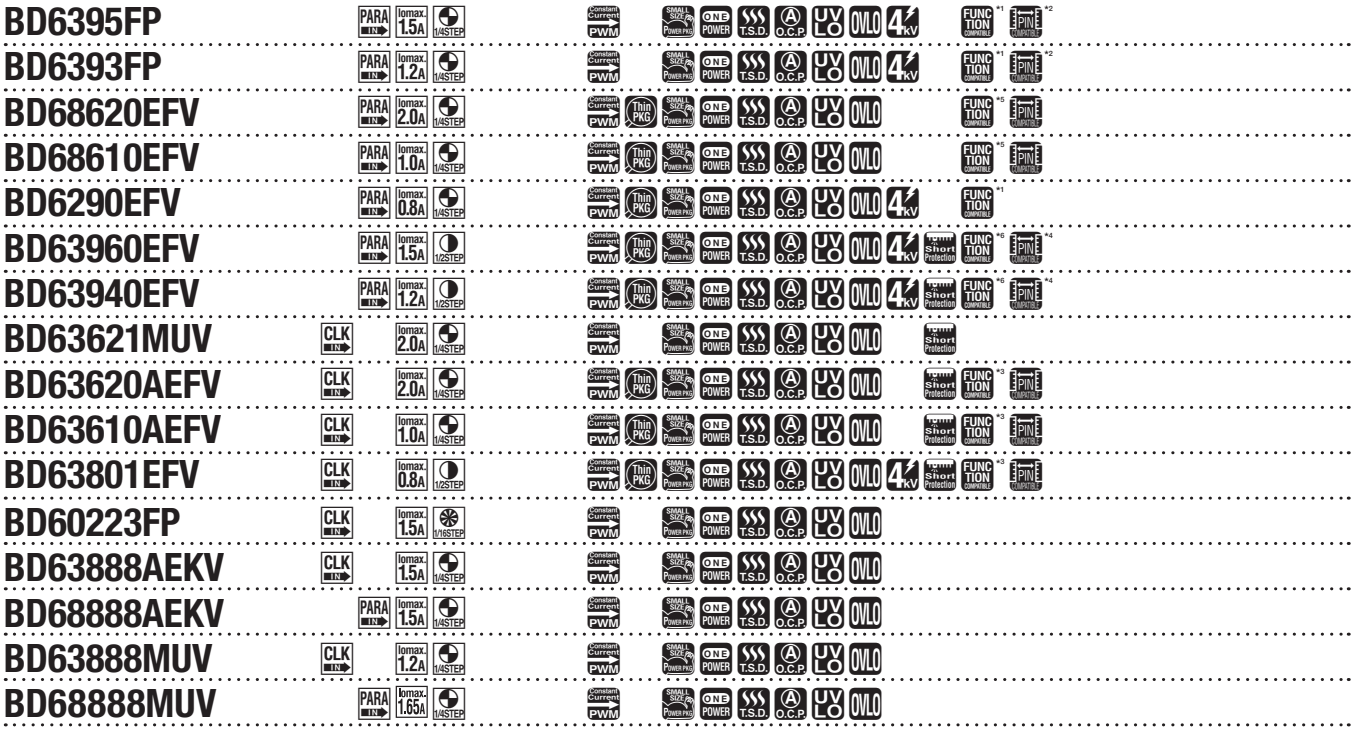
BD63740FM
BD63731EFV
BD63730EFV
BD63725BEFV
BD63720AEFV
BD63715AEFV
BD63710AEFV
BD63920MUV
BD63910MUV
BD63716AMWV
BD68720EFV
BD68715EFV
BD68710EFV
BD6389FM
BD6387EFV
BD6385EFV
BD6383EFV

*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 BD63731EFV, BD63725BEFV, BD63720AEFV, BD63715AEFV and BD63710AEFV are function-compatible.
*6 BD63731EFV, 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
	V_{CC}			High Level	Low Level		
BD63740FM	8 to 28	4.0	2.0	2.0	0.8	0.28	HSOP-M36
BD63731EFV	8 to 28	3.0	2.0	2.0	0.8	0.28	HTSSOP-B28
BD63730EFV	19 to 28	3.0	2.0	2.0	0.8	0.4	HTSSOP-B54
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
BD63920MUV	8 to 28	2.0	2.5	2.0	0.8	0.49	VQFN028V5050
BD63910MUV	8 to 28	1.0	2.5	2.0	0.8	1.3	VQFN028V5050
BD63716AMWV	8 to 28	1.5	2.0	2.0	0.8	0.85	UQFN040V5050
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
BD6389FM	10 to 28	2.2	4.5	2.0	0.8	0.7	HSOP-M36
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

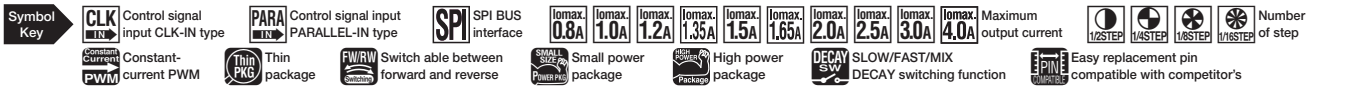
Symbol Key
CLK IN: Control signal input CLK-IN type
PARA IN: Control signal input PARALLEL-IN type
Iomax. 1.0A / 1.5A / 2.0A / 2.2A / 2.5A / 3.0A / 4.0A: Maximum output current
1/4STEP / 1/16STEP: Number of step
Constant Current PWM: Constant-current PWM
FW/RW Switchless: Switch able between forward and reverse
DECAY SW: SLOW/FAST/MIX DECAY switching function
Thin PKG: Thin package
Small Size Power Pkg: Small power package
High Power Package: High power package
FUNCTION COMPATIBLE: Function-compatible
PIN COMPATIBLE: Easy replacement pin compatible with competitor's
ONE POWER: 1 power supply system due to built-in regulator
T.S.D.: Built-in thermal shut-down circuit
O.C.P.: Built-in over current protection circuit
UVLO: Built-in under voltage lock out circuit
OVLO: Built-in over voltage lock out circuit
4kV / 6kV: ESD resistance
Short Protection: Adjacent pin short protection
Protection: Inverse mounting protection

Standard 36V Stepping Motor Drivers



*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.
*5 The BD68620EFV and BD68610EFV are all function-compatible.
*6 The BD63960EFV and BD63940EFV 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}			High Level	Low Level		
BD6395FP	16 to 28	1.5	3.0	2.0	0.8	1.2	HSOP25
BD6393FP	16 to 28	1.2	3.0	2.0	0.8	1.5	HSOP25
BD68620EFV	19 to 28	2.0	1.3	2.0	0.8	0.95	HTSSOP-B24
BD68610EFV	19 to 28	1.0	1.3	2.0	0.8	1.8	HTSSOP-B20
BD6290EFV	19 to 28	0.8	3.0	2.0	0.8	2.8	HTSSOP-B24
BD63960EFV	19 to 28	1.5	2.7	2.0	0.8	1.1	HTSSOP-B24
BD63940EFV	19 to 28	1.2	2.7	2.0	0.8	1.4	HTSSOP-B24
BD63621MUV	8 to 28	2.0	2.5	2.0	0.8	0.49	VQFN028V5050
BD63620AEFV	19 to 28	2.0	1.3	2.0	0.8	0.95	HTSSOP-B24
BD63610AEFV	19 to 28	0.8	1.3	2.0	0.8	1.8	HTSSOP-B20
BD63801EFV	19 to 28	0.8	2.7	2.0	0.8	2.8	HTSSOP-B24
BD60223FP	8 to 28	1.5	2.5	2.0	0.8	0.55	HSOP25
BD63888AEKV	8 to 28	1.5	5.0	2.0	0.8	1.0	HTQFP48V
BD68888AEKV	8 to 28	1.5	5.0	2.0	0.8	1.0	HTQFP48V
BD63888MUV	8 to 28	1.2	5.0	2.0	0.8	1.0	VQFN036V6060
BD68888MUV	8 to 28	1.65	5.0	2.0	0.8	1.0	VQFN036V6060



µ-step 36V Stepping Motor Drivers

BD63860EFV — CLK IN; Iomax. 2.5A; 1/16STEP; Constant Current PWM; FW/RW Switching; DECAY SW; Thin PKG; Small Size Power Pkg; ONE POWER; T.S.D.; A O.C.P.; UV LO; OVLO

BD63510AEFV — CLK IN; Iomax. 1.0A; 1/16STEP; Constant Current PWM; FW/RW Switching; DECAY SW; Thin PKG; Small Size Power Pkg; FUNCTION COMPATIBLE *1; PIN COMPATIBLE; ONE POWER; T.S.D.; A O.C.P.; UV LO; OVLO

BD63511EFV — CLK IN; Iomax. 1.0A; 1/16STEP; Constant Current PWM; FW/RW Switching; DECAY SW; Thin PKG; Small Size Power Pkg; FUNCTION COMPATIBLE *2; PIN COMPATIBLE; ONE POWER; T.S.D.; A O.C.P.; UV LO; OVLO

BD63520AEFV — CLK IN; Iomax. 2.0A; 1/16STEP; Constant Current PWM; FW/RW Switching; DECAY SW; Thin PKG; Small Size Power Pkg; FUNCTION COMPATIBLE *1; PIN COMPATIBLE; ONE POWER; T.S.D.; A O.C.P.; UV LO; OVLO

BD63521EFV — CLK IN; Iomax. 2.0A; 1/16STEP; Constant Current PWM; FW/RW Switching; DECAY SW; Thin PKG; Small Size Power Pkg; FUNCTION COMPATIBLE *2; PIN COMPATIBLE; ONE POWER; T.S.D.; A O.C.P.; UV LO; OVLO

BD63524AEFV — CLK IN; Iomax. 2.5A; 1/16STEP; Constant Current PWM; FW/RW Switching; DECAY SW; Thin PKG; Small Size Power Pkg; PIN COMPATIBLE; ONE POWER; T.S.D.; A O.C.P.; UV LO; OVLO

BD63525AEFV — CLK IN; Iomax. 2.5A; 1/16STEP; Constant Current PWM; FW/RW Switching; DECAY SW; Thin PKG; Small Size Power Pkg; FUNCTION COMPATIBLE *1; PIN COMPATIBLE; ONE POWER; T.S.D.; A O.C.P.; UV LO; OVLO

BD63740FM — CLK IN; Iomax. 4.0A; 1/16STEP; Constant Current PWM; FW/RW Switching; DECAY SW; Inverse Mounting Package; ONE POWER; T.S.D.; A O.C.P.; UV LO; OVLO

*1 The BD63510AEFV, BD63520AEFV and BD63525AEFV are all function-compatible.
*2 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}			High Level	Low Level		
BD63860EFV	16 to 28	2.5	4.0	2.0	0.8	0.8	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
BD63740FM	8 to 28	4.0	2.0	2.0	0.8	0.28	HSOP-M36

Low Voltage Stepping Motor Drivers For Mini and Handheld Printers

BD6382EFV — PARA IN; Iomax. 0.8A; 1/2STEP; Constant Current PWM; Thin PKG; Small Size Power Pkg; T.S.D.; A O.C.P.; UV LO; 4kV; Short Protection; STANDBY 0µA; FUNCTION COMPATIBLE; PIN COMPATIBLE; -40°C +85°C

BD6381EFV — PARA IN; Iomax. 1.2A; 1/2STEP; Constant Current PWM; Thin PKG; Small Size Power Pkg; T.S.D.; A O.C.P.; UV LO; 4kV; Short Protection; STANDBY 0µA; FUNCTION COMPATIBLE; PIN COMPATIBLE

BD6380EFV — PARA IN; Iomax. 0.8A; 1/2STEP; Constant Current PWM; Thin PKG; Small Size Power Pkg; T.S.D.; A O.C.P.; UV LO; 4kV; Short Protection; STANDBY 0µA; FUNCTION COMPATIBLE; PIN 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		
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

40V Stepping Motor Driver

BD63401EFV — PARA IN; Iomax. 1.35A; 1/2STEP; Constant Current PWM; Thin PKG; Small Size Power Pkg; ONE POWER; T.S.D.; A O.C.P.; UV LO; OVLO; 4kV

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		
BD63401EFV	8 to 33	1.35	2.0	2.0	0.8	1.0	HTSSOP-B20

45V Stepping Motor Drivers

BD6425EFV — CLK IN; Iomax. 1.5A; 1/4STEP; Constant Current PWM; FW/RW Switching; DECAY SW; Thin PKG; Small Size Power Pkg; ONE POWER; T.S.D.; A O.C.P.; UV LO; 8kV; Short Protection

BD6423EFV — CLK IN; Iomax. 1.0A; 1/4STEP; Constant Current PWM; FW/RW Switching; DECAY SW; Thin PKG; Small Size Power Pkg; ONE POWER; T.S.D.; A O.C.P.; UV LO; 8kV; Short Protection

BD6422EFV — PARA IN; Iomax. 1.0A; 1/4STEP; Constant Current PWM; DECAY SW; Thin PKG; Small Size Power Pkg; ONE POWER; T.S.D.; A O.C.P.; UV LO; 8kV; Short Protection

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		
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

50V Stepping Motor Driver

BD64220EFV — PARA IN; Iomax. 2.0A; 1/4STEP; Constant Current PWM; DECAY SW; Thin PKG; Small Size Power Pkg; ONE POWER; T.S.D.; A O.C.P.; UV LO; OVLO; Short Protection; Protection

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		
BD64220EFV	8 to 46.2	2.0	2.0	2.0	0.8	0.65	HTSSOP-B28

36V Unipolar Stepper Motor Driver

BM6343FS-Z — CLK IN; SPI; Iomax. 3.0A; 1/4STEP; Constant Current PWM; FW/RW Switching; ONE POWER; T.S.D.; A O.C.P.; UV LO; OVLO; Short Protection

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		
BM6343FS-Z	8 to 28	3.0	5.0	2.0	0.8	0.10	SSOP-A54_36

A O.C.P. Built-in over current protection circuit
UV LO Built-in under voltage lock out circuit
OVLO Built-in over voltage lock out circuit
4kV 8kV ESD resistance
Short Protection Adjacent pin short protection
ONE POWER 1 power supply system due to built-in regulator
T.S.D. Built-in thermal shut-down circuit
FUNCTION COMPATIBLE Function-compatible
STANDBY 0µA Standby current 0µA
-40°C +85°C Operating temperature range
Protection Inverse mounting protection

Automotive 40V Stepping Motor Driver

BD63800MUF-C

Part No.	Supply Voltage (V)	Output Current (A)	Circuit Current (mA)	Input Threshold Voltage (V)		Output ON Resistance (Ω)	Package	Automotive Grade AEC-Q100
	V_{CC}			High Level	Low Level			
BD63800MUF-C	6 to 28	1.21	3.5mA	2.0	0.8	0.75	VQFN32FBV050	YES

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	ComfySIL™ Functional Safety*1	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	FSs	YES

◎ComfySIL™ is a trademark or a registered trademark of ROHM Co., Ltd.
*1 For more information about "ComfySIL™ Functional Safety", please refer to the reverse side of the cover.

3-Phase Brushless Motor Pre-Drivers

BD6761FS

BD63001AMUV

BD63002AMUV

BM62300MUV

BD63003MUV

BD67891MUV

BD16805FV-M

BM64070MUV

BM64300MUV

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	ComfySIL™ Functional Safety*1	Automotive Grade AEC-Q100
					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	—	—
BM62300MUV	33	8 to 28	−40 to +105	14	V_{VREG50}−1.2	0.8	V_G−0.1	0.1	40	VQFN032V5050	—	—
BD63003MUV	40	10.8 to 26.4	−40 to +85	4.5	2.0	0.8	V_{CC}+10*2	10*2	External IN	VQFN032V5050	—	—
BD67891MUV	45	20 to 40	−25 to +85	2.5	2.0	0.8	VMM−7.8	7.8	External IN	VQFN032V5050	—	—
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	FSs	YES
BM64070MUV	100	28 to 77	−40 to +105	6.4	2.8	0.8	V_G−0.1	0.1	90	VQFN040V6060	—	—
BM64300MUV	100	28 to 63	−40 to +105	13	V_{VREG50}−1.2	0.8	V_G−0.1	0.1	40	VQFN040V6060	—	—

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*1 For more information about "ComfySIL™ Functional Safety", please refer to the reverse side of the cover.
*2 Constant current drive type

Symbol Key
- CLK IN: Control signal input CLK-IN type
- SERVO: Built-in servo circuit
- SPI: SPI BUS interface
- 1.2A max.: Maximum output current
- 36V / 40V / 60V / 100V MAX.: Voltage resistance
- 120° SLOPE PWM / 120° PWM / 180° PWM: Output power system
- 1/32 STEP: Number of step
- Constant-current PWM: Constant-current PWM
- FW/RW Switching: Switch able between forward and reverse
- External FET N: External output FET H-side: Nch/L-side: Nch
- External FET P/N: External output FET H-side: Pch/L-side: Nch
- DMOS: DMOS output
- FG AMP. Built-in: Built-in FG Amplifier
- HYS AMP. Built-in: Built-in hysteresis Amplifier
- ONE POWER: 1 power supply system due to built-in regulator
- T.S.D.: Built-in thermal shut-down circuit
- SHORT BRAKE: Built-in short brake
- Motor lock protection: Built-in motor lock-up protection circuit
- O.C.P: Built-in over current protection circuit
- O.V.P: Built-in over voltage protection circuit
- U.V.P: Built-in under voltage protection circuit

3-Phase Brushless Motor Drivers

BD63005AMUV
BD63006MUV
BD63007MUV
BD63015EFV
BD63035EFV-M
BD16852EFV-C

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)	PWM Frequency (kHz)	Package	ComfySIL™ Functional Safety*1	Automotive Grade AEC-Q100
						H Level	L Level					
BD63005AMUV	33	10 to 28	2	−25 to +85	4.4	2.0	0.8	0.17	External IN	VQFN040V6060	—	—
BD63006MUV	33	8 to 28	1.5	−40 to +85	4.4	2.0	0.8	0.8	External IN	VQFN024V4040	—	—
BD63007MUV	33	8 to 28	3	−25 to +85	4.4	2.0	0.8	0.17	External IN	VQFN040V6060	—	—
BD63015EFV	36	8 to 28	1.5	−40 to +105	8	2.0	0.8	0.6	External IN	HTSSOP-B20	—	—
BD63035EFV-M	36	8 to 28	1.5	−40 to +105	8	2.0	0.8	0.6	22.7	HTSSOP-B20	FSs	YES
New BD16852EFV-C	40	5.5 to 18.0	3.2	−40 to +125	5	—	—	0.4	20	HTSSOP-B28	FSs	YES

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*1 For more information about "ComfySIL™ Functional Safety", please refer to the reverse side of the cover.

Fan Motor Drivers

5V Single-Phase Full-wave Fan Motor Drivers

BH6766FVM
BD6965NUX
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
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

UVLO Built-in under voltage lock out circuit
OVLO Built-in over voltage lock out circuit
Short Protection Adjacent pin short protection
5v IN 12v IN 24v IN Power supply compatible
250 CLASS 300 CLASS 350 CLASS This is an indication for the amount of current that can flow into a motor running at fixed speed.
HALL Sensor Include Hall sensor
FG RPM pulse signal output
HALL Built-in hall element power supply voltage
SPEED control Rotational speed control possible
LOCK Pin External capacitor for detecting motor lock not necessary
LOCK Motor lock detection function
ALARM Lock alarm signal output
START UP Motor startup possible low-duty
SENSOR LESS DRIVE Drive method with hall sensor for detecting the rotor position
SOFT S/W Soft switching

Multifunction Single-Phase Full-wave Fan Motor Drivers

BD6971FV

BD6994FV

BD6995FV

BD61243FV

BD61245EFV

BD61248NUX

BD69730FV

BD69740FV

BD61250MUV

BD61251FV

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
BD6971FV	3.5 to 17.0	1,000	DMOS	Upper and Lower 0.6 (I_O=200mA)	DC/PWM	1.3	1 : 10	SSOP-B14
BD6994FV	4.5 to 17.0	1,200	DMOS	Upper and Lower 0.6 (I_O=400mA)	DC/PWM	1.25	1 : 10	SSOP-B16
BD6995FV	4.3 to 17.0	1,200	DMOS	Upper and Lower 0.6 (I_O=400mA)	DC	1.25	1 : 10	SSOP-B16
BD61243FV	5.5 to 16.0	1,200	DMOS	Upper and Lower 0.4 (I_O=400mA)	DC/PWM	1.25	1 : 10	SSOP-B14
BD61245EFV	4.0 to 16.0	1,800	DMOS	Upper and Lower 0.2 (I_O=400mA)	DC/PWM	–	1 : 10	HTSSOP-B16
BD61248NUX	4.5 to 16.0	1,200	DMOS	Upper and Lower 0.2 (I_O=200mA)	PWM	–	1 : 10	VSON010X3030
BD69730FV	4.3 to 17.0	10	Pre-Driver	–	DC/PWM	1.26	1 : 20	SSOP-B16
BD69740FV	4.3 to 17.0	10	Pre-Driver	–	DC/PWM	1.26	1 : 20	SSOP-B16
BD61250MUV	4.5 to 36.0	10	Pre-Driver	–	DC/PWM	–	1 : 20	VQFN024V4040
BD61251FV	4.5 to 16.0	10	Pre-Driver	–	PWM	–	1 : 20	SSOP-B16

2-Phase Half-wave Fan Motor Driver

BA6406F

Part No.	Supply Voltage (V)	I_O 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
BA6406F	4.0 to 28.0	70	Pre-Driver	–	–	–	–	–	1 : 4.5	SOP8

3-Phase Full-wave Fan Motor Drivers

BD67173NUX

BD6326ANUX

BD63282EFV

BD63242EFV

BD63242FV

BD63241FV

BD63251MUV

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
BD67173NUX	2.2 to 5.5	700	CMOS	Upper and Lower 0.25 (I_O=250mA)	PWM	–	1 : 5	VSON010X3030
BD6326ANUX	2.2 to 5.5	700	CMOS	Upper and Lower 0.25 (I_O=250mA)	PWM	–	1 : 5	VSON010X3030
BD63282EFV	5.0 to 16.0	1,000	DMOS	Upper and Lower 0.3 (I_O=300mA)	DC/PWM	–	1 : 2, 1 : 5, 1 : 10	HTSSOP-B20
BD63242EFV	5.0 to 16.0	1,000	DMOS	Upper and Lower 0.3 (I_O=300mA)	DC/PWM	–	Setting of SOSC-pin	HTSSOP-B16
BD63242FV	5.0 to 16.0	1,000	DMOS	Upper and Lower 0.3 (I_O=300mA)	DC/PWM	–	Setting of SOSC-pin	SSOP-B16
BD63241FV	5.0 to 16.0	1,000	DMOS	Upper and Lower 0.24 (I_O=300mA)	PWM	1.25	1 : 5	SSOP-B16
BD63251MUV	5.5 to 15.0	10	Pre-Driver	–	PWM	1.25	1 : 10	VQFN024V4040

Symbol Key

5V IN / 12V IN / 24V IN Power supply compatible

350 / 400 / 450 / 800 CLASS This is an indication for the amount of current that can flow into a motor running at fixed speed.

PRE DRIVER

Small PKG Small mount type

FG RPM pulse signal output

SENSOR LESS DRIVE Drive method with hall sensor for detecting the rotor position

ONE HALL DRIVE One hall sensor drive

THREE HALL DRIVE Three hall sensor drive

SOFT S/W Soft switching

PWM 150° / PWM 180° Output power system

HALL Built-in hall element power supply voltage

SPEED CONTROL Rotational speed control possible

3-Phase Brushless Fan Motor Drivers For Household Appliances

BM6241FS 250V MAX. Iomax. 2.0A — T.S.D. UVLO O.C.P.

BM6242FS 600V MAX. Iomax. 1.5A — T.S.D. UVLO O.C.P.

BM6243FS 600V MAX. Iomax. 2.5A — T.S.D. UVLO O.C.P.

BM6244FS 250V MAX. Iomax. 2.0A — T.S.D. UVLO O.C.P. IO LIMIT LOCK FG

BM6245FS 600V MAX. Iomax. 1.5A — T.S.D. UVLO O.C.P. IO LIMIT LOCK FG

BM6246FS 600V MAX. Iomax. 2.5A — T.S.D. UVLO O.C.P. IO LIMIT LOCK FG

BM6247FS 250V MAX. Iomax. 2.0A — T.S.D. UVLO O.C.P. IO LIMIT LOCK FG

BM6248FS 600V MAX. Iomax. 1.5A — T.S.D. UVLO O.C.P. IO LIMIT LOCK FG

BM6249FS 600V MAX. Iomax. 2.5A — T.S.D. UVLO O.C.P. IO LIMIT LOCK FG

BM6258FS 600V MAX. Iomax. 1.5A — T.S.D. UVLO O.C.P. IO LIMIT LOCK FG

Part No.	Control	Output Device	Rated Voltage (V)	Output Current (A)	Output ON Resistance (Ω)	Diode Forward Voltage (V)	FG Conversion Ratio	Package
BM6241FS	6 inputs	MOSFET	250	2.0	0.9	0.9	12:12	SSOP-A54_23
BM6242FS	6 inputs	MOSFET	600	1.5	2.7	1.1	12:12	SSOP-A54_23
BM6243FS	6 inputs	MOSFET	600	2.5	1.7	1.1	12:12	SSOP-A54_23
BM6244FS	120°	MOSFET	250	2.0	0.9	0.9	12:12	SSOP-A54_36A
BM6245FS	120°	MOSFET	600	1.5	2.7	1.1	12:12	SSOP-A54_36A
BM6246FS	120°	MOSFET	600	2.5	1.7	1.1	12:12	SSOP-A54_36A
BM6247FS	180° (Sinusoidal)	MOSFET	250	2.0	0.9	0.9	12:12	SSOP-A54_36A
BM6248FS	180° (Sinusoidal)	MOSFET	600	1.5	2.7	1.1	12:12	SSOP-A54_36A
BM6249FS	180° (Sinusoidal)	MOSFET	600	2.5	1.7	1.1	12:12	SSOP-A54_36A
BM6258FS	180° (Sinusoidal)	MOSFET	600	1.5	2.7	1.1	15:12	SSOP-A54_36A

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 BD62012BFS	10.0 to 18.0	150°	2.1 to 5.4	0 to +30	12 : 12	SSOP-A24
New BD62017BFS	10.0 to 18.0	180° (Sinusoidal)	2.1 to 5.4	0 to +40	15 : 12	SSOP-A24
New BD62018BFS	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
BU6821G	4.5 to 5.5	0.5	0.005 to 5	15 : 12	SSOP5
BU6823G	4.5 to 5.5	0.5	0.005 to 5	21 : 12	SSOP5

LOCK External capacitor for detecting motor lock not necessary
LOCK Motor lock detection function
ALARM Lock alarm signal output
MIN rpm Minimum rotational speed setting
START UP Motor startup possible low-duty
T.S.D. Built-in thermal shut-down circuit
IO LIMIT Output current limit can be set
SOFT START Soft start
Built-in diode for preventing damage due to backward connection
250V MAX. 600V MAX. Rated Voltage
Iomax. 1.5A 2.0A 2.5A Maximum output current
UVLO Built-in under voltage lock out circuit
A O.C.P. Built-in over current protection circuit

Drivers for Printer

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
BD63130AFM	8.0 to 46.2	3.0	5.0	2.5	2.0	0.8	0.55	HSOP-M36
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

There are other stepper motor drivers that can be used in industrial equipment and printers.

Part No.	Power Supply (V)	Output Current (A)	Circuit Current (mA)	Input Threshold Voltage (V)		Output ON Resistance (Ω)	Package
				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.	V_{CC} (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

System Motor Driver with Built-in Switching Regulators (H Bridge + SWREG 2ch)

Part No.	V_{CC} (V)	Motor Rated Output Current	H Bridge ch	SW REG1 Output Current Range (A)	SW REG2 Output Current Range (A)	Standby Current (μA) (Max)	Package
BD64547MUV	50	2.0 A/Phase	2	0 to 2.0	0 to 1.4	100	VQFN048V7070
BD64008MUV	50	2.0 A/Phase	1 (2ch parallel use)	0 to 2.0	0 to 1.4	100	VQFN048V7070

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.

Drivers for Camera

5ch System Lens Driver for Cameras

Part No.	Supply Voltage (V)	Driver Output Max Current (A)	Drive Method Examples of Actuator (Drived 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			
BD6758KN	2.5 to 5.5	0.8	e.g.	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 (Drived 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	e.g.	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	e.g.			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 (Drived 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	e.g.	—	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	e.g.	—	—	—	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	e.g.	—	—	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	e.g.	—	—	—	—	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	e.g.	—	—	—	—	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	e.g.	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	e.g.	—	—	—	—	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	e.g.	—	—	—	—	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 the recommendations. Other 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 (Drived 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	e.g. 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
			e.g. 2		DCM (3ch) FULL ON (PWM) 1.5	VCM (4ch) FULL ON (PWM) 1.5	—	—			
BU24033GW	1.62 to 3.6 (Io) 2.7 to 3.6 (Logic) 2.7 to 5.5 (Driver)	0.5/0.6	e.g. 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
			e.g. 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	e.g. 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
			e.g. 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	e.g. 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
			e.g. 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			

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

Mobile Phone Module Drivers

2-wire Serial (I²C-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)
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)	I²C 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)	I²C Fm compatible	ISRC	✓	with	UCSP35L1 0.77×1.3, H=Max 0.36
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)	I²C Fm compatible	ISRC	✓	without	UCSP30L1 0.77×1.37, H=Max 0.33
BU64292GWZ	2.5 to 3.6	Drive AF using voice coil motor	0.25	Constant current (±5%)	125	0.28 (V_{DD}=3V, I_O=100mA)	I²C Fm+ compatible	ISRC	✓	without	UCSP25L1 0.68×1.08, H=Max 0.30
BU64982GWZ	2.5 to 3.6	Drive AF using voice coil motor	0.25	Constant current (±5%)	125	0.28 (V_{DD}=3V, I_O=100mA)	I²C Fm+ compatible	ISRC	✓	with	UCSP30L1A 0.68×1.08, H=Max 0.33

2-wire Serial (I²C-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)	I²C Fm compatible	ISRC	✓	without	UCSP30L1 0.77×1.2, 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)	I²C 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)	I²C Fm compatible	ISRC	✓	with	UCSP35L1 0.77×1.2, H=Max 0.36
BU64253GWZ	2.5 to 4.5	Drive AF using voice coil motor	1	Constant current (±5%)	±100	3.2 (V_{DD}=3V)	I²C 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)	I²C 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)	I²C Fm+ compatible	ISRC	✓	with	UCSP35L1 0.77×1.2, H=Max 0.36

2-wire Serial (I²C-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	e.g. 1 Drive AF using piezo actuator e.g. 2 Drive Zoom using piezo actuator	1	FULL ON	500	1.4 (V_{CC}=3V)	I²C 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	e.g. 1 Drive AF using piezo actuator e.g. 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