

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 (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 (Idle)/Brake | SOP8 |
| BD6210HFP | | | 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 (Idle)/Brake | SOP8 | |
| BD6221F | | | 1.0 | | | 1.5 | | SOP8 | |
| BD6222FP | | | 2.0 | | | 1.0 | | HSOP25 | |
| BD6222HFP | | | 2.0 | | | 1.0 | | 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 (Idle)/Brake | SOP8 |
| BD6231F | | | 1.0 | | | 1.5 | | SOP8 |
| BD6231HFP | | | 2.0 | | | 1.0 | | HRP7 |
| BD6232FP | | | 2.0 | | | 1.0 | | HSOP25 |
| BD6232HFP | | | 1.0 | | | 1.0 | | HRP7 |
| BD6236FP | | | 2 | | | 1.0 | | 1.5 |
| BD6236FM | 2.0 | 1.0 | | HSOP-M28 | | | | |
| BD6237FM | 1 | 8.0 to 28.0 | 2.0 | 2.0 or more | 0.8 or less | 1.0 | Forward/Reverse/Standby (Idle)/Brake | HSOP-M28 |
| BD62105AFVM | | | 0.5 | | | 1.8 | | MSOP8 |
| BD62110AEFJ | | | 1.0 | | | 1.8 | | HTSOP-J8 |
| BD62120AEFJ | | | 2.0 | | | 0.65 | | HTSOP-J8 |
| New BD62130AEFJ | | | 3.0 | | | 0.35 | | HTSOP-J8 |
| BD62210AEFV | | | 2 | | | 1.0 | | 1.9 |
| New BD60203EFV | 1.7 | 0.65 | | HTSSOP-B24 | | | | |
| BD62220AEFV | 2.0 | 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 ($^{\circ}$ 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 |
| 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 |
|------------|----|--------------------|--------------------|-----------------------------|-------------|--------------------------------------|--------------------------------------|----------|
| | | | | 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 |

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 |
|------------|----|--------------------|--------------------|-----------------------------|-------------|--------------------------------------|--------------------------------------|---------|
| | | | | 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 |

| 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 | | | |
| 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 |
| New BD63576MUX | 1 | 2.0 to 10.0 | 1.2 peak 3.2 | $V_{CC} \times 0.7$ or more | $V_{CC} \times 0.3$ 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 |
| New 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 | |
| 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) | | | | | | | | |
| 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 | |

Stepper Motor Drivers

High Performance, High Reliability 36V Stepper Motor Drivers For PPCs, 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 |
|--------------------|--------------------|--|--------------------|----------------------|-----------------------------|-----------|--------------------------|--------------|
| | V _{CC} | | | | 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 |

Motor/Actuator Drivers

| | | | | | | | | | | | | | | |
|--|---|---------------------------------------|--|--|--|--|--|--|--|---|---|--|----------------|----------------------|
| | Control signal input CLK-IN type | Control signal input PARALLEL-IN type | | | | | | | | Maximum output current | | | Number of step | Constant-current PWM |
| | Switch able between forward and reverse | SLOW/FAST/MIX DECA switching function | | | | | | | | Easy replacement pin compatible with competitor's | 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 | 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 |
| BD63620AEFV | 19 to 28 | 2.0 | 1.3 | 2.0 | 0.8 | 0.95 | HTSSOP-B24 |
| BD63610AEFV | 19 to 28 | 1.8 | 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 |

μ-step 36V Stepper Motor Drivers

| | | | | | | | | | | | | | | |
|--------------------|-----------|---------------------------|---------|----------------|------|-------------|-------------|-------------------------------|------------------|--------------|--------|--------|------|------|
| BD63860EFV | CLK IN | Io _{max} 2.5A | 1/2STEP | Current PWM | FWRW | DECAY SW | Thin PKG | SMALL SIZE POWER PKG | ONE POWER | T.S.D. | O.C.P. | UV | OVLO | |
| BD63847EFV | CLK IN | Io _{max} 2.0A | 1/2STEP | Current PWM | FWRW | DECAY SW | Thin PKG | SMALL SIZE POWER PKG | FUNCTION MODE | ONE POWER | T.S.D. | O.C.P. | UV | OVLO |
| BD63843EFV | CLK IN | Io _{max} 1.0A | 1/2STEP | Current PWM | FWRW | DECAY SW | Thin PKG | SMALL SIZE POWER PKG | FUNCTION MODE | ONE POWER | T.S.D. | O.C.P. | UV | OVLO |
| BD63510AEFV | CLK IN | Io _{max} 1.0A | 1/2STEP | Current PWM | FWRW | DECAY SW | Thin PKG | SMALL SIZE POWER PKG | FUNCTION MODE | ONE POWER | T.S.D. | O.C.P. | UV | OVLO |
| BD63511EFV | CLK IN | Io _{max} 1.0A | 1/2STEP | Current PWM | FWRW | DECAY SW | Thin PKG | SMALL SIZE POWER PKG | FUNCTION MODE | ONE POWER | T.S.D. | O.C.P. | UV | OVLO |
| BD63520AEFV | CLK IN | Io _{max} 2.0A | 1/2STEP | Current PWM | FWRW | DECAY SW | Thin PKG | SMALL SIZE POWER PKG | FUNCTION MODE | ONE POWER | T.S.D. | O.C.P. | UV | OVLO |
| BD63521EFV | CLK IN | Io _{max} 2.0A | 1/2STEP | Current PWM | FWRW | DECAY SW | Thin PKG | SMALL SIZE POWER PKG | FUNCTION MODE | ONE POWER | T.S.D. | O.C.P. | UV | OVLO |
| BD63524AEFV | CLK IN | Io _{max} 2.5A | 1/2STEP | Current PWM | FWRW | DECAY SW | Thin PKG | SMALL SIZE POWER PKG | FUNCTION MODE | ONE POWER | T.S.D. | O.C.P. | UV | OVLO |
| BD63525AEFV | CLK IN | Io _{max} 2.5A | 1/2STEP | Current PWM | FWRW | DECAY SW | Thin PKG | SMALL SIZE POWER PKG | FUNCTION MODE | ONE POWER | T.S.D. | O.C.P. | UV | OVLO |

* The BD63847EFV and BD63843EFV are all function-compatible.
 ** The BD63510AEFV, BD63520AEFV and BD63525AEFV are all function-compatible.
 *** 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 | PARA IN | Io _{max} 0.8A | 1/2STEP | Current PWM | Thin PKG | SMALL SIZE POWER PKG | T.S.D. | O.C.P. | UV | OVLO | 4kV | Short Protection | FUNCTION MODE | TEMP PROTECTION | -40°C +85°C |
| BD6381EFV | PARA IN | Io _{max} 1.2A | 1/2STEP | Current PWM | Thin PKG | SMALL SIZE POWER PKG | T.S.D. | O.C.P. | UV | OVLO | 4kV | Short Protection | FUNCTION MODE | TEMP PROTECTION | -40°C +85°C |
| BD6380EFV | PARA IN | Io _{max} 0.8A | 1/2STEP | Current PWM | Thin PKG | SMALL SIZE POWER PKG | T.S.D. | O.C.P. | UV | OVLO | 4kV | Short Protection | FUNCTION MODE | TEMP PROTECTION | -40°C +85°C |

| 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 Stepper Motor Drivers

| | | | | | | | | | | | | |
|-------------------|------------|----------------------------|---------|----------------|-------------|-------------------------------|--------------|--------|--------|----|------|-----|
| BD63401EFV | PARA IN | Io _{max} 1.35A | 1/2STEP | Current PWM | Thin PKG | SMALL SIZE POWER PKG | ONE POWER | T.S.D. | O.C.P. | UV | OVLO | 4kV |
|-------------------|------------|----------------------------|---------|----------------|-------------|-------------------------------|--------------|--------|--------|----|------|-----|

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

45V Stepper Motor Drivers

| | | | | | | | | | | | | | | |
|------------------|------------|---------------------------|---------|----------------|------|-------------|-------------|-------------------------------|--------------|--------|--------|----|------|---------------------|
| BD6425EFV | CLK IN | Io _{max} 1.5A | 1/2STEP | Current PWM | FWRW | DECAY SW | Thin PKG | SMALL SIZE POWER PKG | ONE POWER | T.S.D. | O.C.P. | UV | OVLO | Short Protection |
| BD6423EFV | CLK IN | Io _{max} 1.0A | 1/2STEP | Current PWM | FWRW | DECAY SW | Thin PKG | SMALL SIZE POWER PKG | ONE POWER | T.S.D. | O.C.P. | UV | OVLO | Short Protection |
| BD6422EFV | PARA IN | Io _{max} 1.0A | 1/2STEP | Current PWM | FWRW | DECAY SW | Thin PKG | SMALL SIZE POWER PKG | ONE POWER | T.S.D. | O.C.P. | UV | 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} | 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 | CLK IN Control signal input CLK-IN type | SERVO Built-in servo circuit | PARA IN Control signal input PARALLEL-IN type | Io _{max} 0.8A | Io _{max} 1.0A | Io _{max} 1.2A | Io _{max} 1.35A | Io _{max} 1.5A | Io _{max} 2.0A | Io _{max} 2.5A | Maximum output current | 36V MAX. | 40V MAX. | 60V MAX. | 100V MAX. | Rated Voltage | |
| 120° S/PWM | 120° PWM | 180° PWM | Output power system | 1/2STEP | 1/4STEP | 1/8STEP | 1/16STEP | Number of step | Constant-current PWM | Thin package | Switch able between forward and reverse | SMALL SIZE POWER PKG | Small power package | DMOS | DMOS output | FG AMP | Built-in FG Amplifier |
| DECAY SW | SLOW/FAST/MIX | SPIN | Easy replacement pin compatible with competitor's | External FET | H-side: Nch/L-side: Nch | External FET | H-side: Pch/L-side: Nch | DMOS | DMOS output | FG AMP | Built-in FG Amplifier | | | | | | |

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 | 2xV _{CC} -1.0 | 5.5 | 20 | HTQFP64AV | YES |

3-Phase Brushless Motor Driver with Speed Control

BD67929EFV



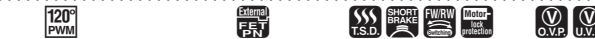
| Part No. | Max Voltage (V) | Supply Voltage (V) | Operating Temperature (°C) | Circuit Current (mA) | Input Threshold Voltage (V) | | External FET Drive Voltage (V) | | PWM Frequency (kHz) | Package |
|------------|-----------------|--------------------|----------------------------|----------------------|-----------------------------|---------|--------------------------------|-------|---------------------|------------|
| | | | | | 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

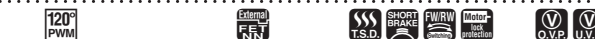
BD6761FS



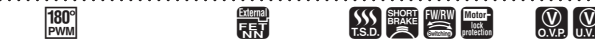
BD63001AMUV



BD63002AMUV



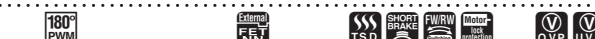
BM62300MUV



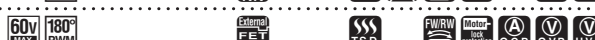
BM62350MUV



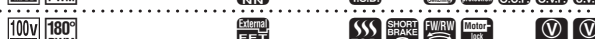
BM62351MUV



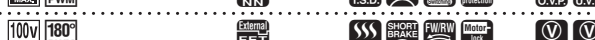
BD16805FV-M



BM64300MUV



BM64350MUV



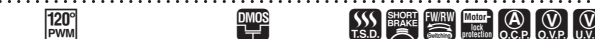
| Part No. | Max Voltage (V) | Supply Voltage (V) | Operating Temperature (°C) | Circuit Current (mA) | Input Threshold Voltage (V) | | External FET Drive Voltage (V) | | PWM Frequency (kHz) | Package | Automotive Grade AEC-Q100 |
|-----------------------|-----------------|--------------------|----------------------------|----------------------|-----------------------------|---------|--------------------------------|-------|---------------------|--------------|---------------------------|
| | | | | | H Level | L Level | Upper | Lower | | | |
| 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 | - |
| New BM62300MUV | 33 | 8 to 28 | -40 to +105 | 14 | V _{VREG50} -1.2 | 0.8 | V _G -0.1 | 0.1 | External IN | VQFN032V5050 | - |
| New BM62350MUV | 33 | 8 to 28 | -40 to +105 | 14 | V _{VREG50} -1.2 | 0.8 | V _G -0.1 | 0.1 | External IN | VQFN032V5050 | - |
| New BM62351MUV | 33 | 8 to 28 | -40 to +105 | 14 | V _{VREG50} -1.2 | 0.8 | V _G -0.1 | 0.1 | External CLK IN | VQFN032V5050 | - |
| BD16805FV-M | 60 | 8 to 18 | -40 to +110 | 15.2 | 3.0 | 1.0 | 2xV _{CC} -0.5 | 8.0 | 25 | SSOP-B40 | YES |
| New BM64300MUV | 100 | 28 to 63 | -40 to +105 | 13 | V _{VREG50} -1.2 | 0.8 | V _G -0.1 | 0.1 | External IN | VQFN040V6060 | - |
| New BM64350MUV | 100 | 28 to 63 | -40 to +105 | 13 | V _{VREG50} -1.2 | 0.8 | V _G -0.1 | 0.1 | External IN | VQFN040V6060 | - |

3-Phase Brushless Motor Drivers

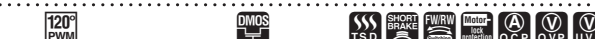
BD63005AMUV



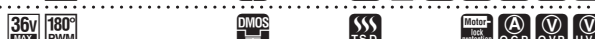
BD63006MUV



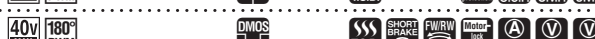
BD63007MUV



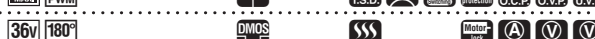
BD63015EFV



BM62380MUV



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) | PWM Frequency (kHz) | Package | Automotive Grade AEC-Q100 |
|-----------------------|-----------------|--------------------|--------------------|----------------------------|----------------------|-----------------------------|---------|--------------------------|---------------------|--------------|---------------------------|
| | | | | | | H Level | L Level | | | | |
| BD63005AMUV | 33 | 10 to 28 | 2.0 | -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 | 3.0 | -25 to +85 | 4.4 | 2.0 | 0.8 | 0.17 | External IN | VQFN040V6060 | - |
| BD63015EFV | 36 | 8 to 28 | 1.5 | -40 to +105 | 8.0 | 2.0 | 0.8 | 0.6 | External IN | HTSSOP-B20 | - |
| New BM62380MUV | 40 | 8 to 28 | 2.0 | -40 to +85 | 14 | V _{VREG50} -1.2 | 0.8 | 0.6 | External IN | VQFN040V6060 | - |
| BD63035EFV-M | 36 | 8 to 28 | 1.5 | -40 to +105 | 8.0 | 2.0 | 0.8 | 0.6 | 22.7 | HTSSOP-B20 | YES |

| | | | | | | |
|--|--|---|--|--|--|--|
| HYS 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 | HIGH SPEED High RPM-compatible | CLOCK FLT No-CLOCK input detection function | 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 | FUNCTION COMPATIBLE Function-compatible | UV LO Built-in under voltage lock out circuit | O.V.LO Built-in over voltage lock out circuit | 4kV 8kV ESD resistance |
| Short protection Adjacent pin short protection | STANDBY Standby current 0μA | -40 to +85°C Operating temperature range | FB CTRL Feed back speed control | | | |

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 | 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 |
| 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
 5V MIN 12V MIN 24V MIN Power supply compatible
 250 CLASS 300 CLASS 350 CLASS 400 CLASS 450 CLASS 800 CLASS PRE DRIVER This is an indication of the amount of current that can flow into a motor running at fixed speed.
 HALL Sensor Include Hall sensor
 Small Pkg Small mount type
 FG FLT 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 SW Soft switching
 PWM 150 PWM 180 Output power system
 HALL Built-in hall element power supply voltage
 Small Pkg Rotational speed control possible

Multifunction Single-Phase Full-wave Fan Motor Drivers

| | | |
|------------|--|--|
| BD6971FV | | |
| BD6994FV | | |
| BD6995FV | | |
| BD61243FV | | |
| BD61245EFV | | |
| BD61246EFV | | |
| BD61247NUX | | |
| 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 |
| 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 |
| BD61245EFV | 4.0 to 16.0 | 1,800 | DMOS | Upper and Lower 0.2 (I _o =400mA) | DC/PWM | — | 1 : 10 | HTSSOP-B16 |
| BD61250MUV | 4.5 to 36.0 | 10 | Pre-Driver | — | DC/PWM | — | 1 : 20 | VQFN024V4040 |
| BD61246EFV | 4.0 to 16.0 | 1,800 | DMOS | Upper and Lower 0.2 (I _o =400mA) | DC/PWM | — | 1 : 10 | HTSSOP-B16 |
| BD61247NUX | 4.5 to 16.0 | 1,200 | DMOS | Upper and Lower 0.2 (I _o =200mA) | PWM | — | 1 : 10 | VSON10X3030 |
| BD61251FV | 4.5 to 16.0 | 10 | Pre-Driver | — | PWM | — | 1 : 20 | SSOP-B16 |

2-Phase Half-wave Fan Motor Drivers

| | | |
|---------|--|--|
| BD6701F | | |
| BA6406F | | |
| BA6506F | | |

| Part No. | Supply Voltage (V) | I _o 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 _o =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 | | |
| BD6326NUX | | |
| 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 | VSON10X3030 |
| BD6326NUX | 2.2 to 5.5 | 700 | CMOS | Upper and Lower 0.25 (I _o =250mA) | PWM | — | 1 : 5 | VSON10X3030 |
| New 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 | 1.25 | Setting of SOSC-pin | HTSSOP-B16 |
| BD63242FV | 5.0 to 16.0 | 1,000 | DMOS | Upper and Lower 0.24 (I _o =300mA) | PWM | 1.25 | 1 : 5 | 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-Drive | — | PWM | 1.5 | 1 : 10 | VQFN024V4040 |

- External capacitor for detecting motor lock not necessary
- 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

3-Phase Brushless Fan Motor Drivers For Household Appliances

| | | |
|-----------------|--|--|
| BM6241FS | | |
| BM6242FS | | |
| BM6243FS | | |
| BM6244FS | | |
| BM6245FS | | |
| BM6246FS | | |
| BM6247FS | | |
| BM6248FS | | |
| BM6249FS | | |

| Part No. | Control | Output Device | Rated Voltage (V) | Output Current (A) | Output ON Resistance (Ω) | Diode Forward Voltage (V) | Package |
|-----------------|-------------------|---------------|-------------------|--------------------|--------------------------|---------------------------|-------------|
| BM6241FS | 6 inputs | MOSFET | 250 | 2.0 | 0.9 | 0.9 | SSOP-A54_23 |
| BM6242FS | 6 inputs | MOSFET | 600 | 1.5 | 2.7 | 1.1 | SSOP-A54_23 |
| BM6243FS | 6 inputs | MOSFET | 600 | 2.5 | 1.7 | 1.1 | SSOP-A54_23 |
| BM6244FS | 120° | MOSFET | 250 | 2.0 | 0.9 | 0.9 | SSOP-A54_36 |
| BM6245FS | 120° | MOSFET | 600 | 1.5 | 2.7 | 1.1 | SSOP-A54_36 |
| BM6246FS | 120° | MOSFET | 600 | 2.5 | 1.7 | 1.1 | SSOP-A54_36 |
| BM6247FS | 180° (Sinusoidal) | MOSFET | 250 | 2.0 | 0.9 | 0.9 | SSOP-A54_36 |
| BM6248FS | 180° (Sinusoidal) | MOSFET | 600 | 1.5 | 2.7 | 1.1 | SSOP-A54_36 |
| 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 |
|-------------------|--------------------|-------------------|---------------------------|---------------------|---------------------|----------|
| BD62017AFS | 10.0 to 18.0 | 180° (Sinusoidal) | 2.1 to 5.4 | 0 to +40 | 15 : 12 | SSOP-A24 |
| 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 |
|----------------|--------------------|----------------------|-----------------------|------------------|---------|
| 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 |

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 |
|--------------------|------------------|--------------|-----------------|---------------|-----------------|---------|---------|--------------------------------------|--------------------|-----------|------------------|------------|---------------------------|
| 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 |
|--------------------|------------------|-----|-----------------|---------------|--------------|---------|-------------------|-------------|--------------------------------------|--------------------|------------|---------------------------|
| BD8256EFV-M | 4.5 to 10.5 | SPI | 2 | 1 | 2ch STEPPING | 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 | | | | | |
| | 10.8 to 13.2 | 6, 7 | PWM | 2.2 | 1.15A/V | | | | | |
| | | 8 | PWM | 1.0 | 1.15A/V | | | | | |
| | | 9 | PWM | 1.5 | - | | | | | |

| System Motor Driver ICs for Slim Drives (3 Sensors) Basic Type | | | | | | | | | | |
|--|------------|--------|-----|-----|----------------|---|---|---|---|---------|
| 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 | | | | | |

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 ($I_{C0}=1.0A$) | 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 | | |
| 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 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 ($^{\circ}C$) | 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 | | | | |
| 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 ($\pm 3\%$) | VQFN36 6.2x6.2, 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 | | | | |
| 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 2.6x2.6, 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 ($\pm 3\%$) 1.2 | VCM (6ch) PWM ($\pm 3\%$) 1.2 | Parallel + Serial | 0.9 ($\pm 10\%$) | VQFP48C 9.0x9.0, 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 4.0x4.0, 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 6.5x6.4, 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 1.6x1.6, 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 6.5x5.0, 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 6.5x6.4, 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 5.0x5.0, 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 3.0x3.0, 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 4.0x4.0, 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 2.6x2.6, 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 (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 | 1024 | UCSP75M3 3.0x3.0, 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 3.1x3.1, 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 5.0x5.0, 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 | | | |

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

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 _M =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 | | |
| 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 | | |
| New 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) | I ² C Fm+ compatible | ISRC | ✓ | without | UCSP25L1 0.68×1.08, H=Max 0.30 | | |
| 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 | | |
| New 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) | I ² C Fm+ compatible | ISRC | ✓ | with | UCSP30L1A 0.68×1.08, 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 0.77×1.2, 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) | 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 | | |
| 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) | 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) | |
| | V _{CC} | | | | | | | | | | | | |
| BU64562GWZ | 2.3 to 4.8 | ex. 1 | 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 | |
| | | ex. 2 | | | | | | | | | | | |
| 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 | 2 | FULL ON | 500 | 1.0 (V _{CC} =3V, I _O =0.4A) | Parallel | ✓ | ✓ | ✓ | ✓ | with | VCSP50L2 2.1×2.1, H=Max 0.55 |
| | | ex. 2 | | | | | | | | | | | |