

Hitachi High Voltage ICs

Status List

Date: Feb. 2024

Compliance status of RoHS directive

C: Compliant **S.C:** Compliant (Included RoHS exemption substance) **N:** Non-compliant

Production Status

M: Mass production **U:** Under development **N:** Not for new design **D:** Discontinued

Motor Driver IC (Single Chip Inverter)

◆VSP Input Series (Charge pump system) Brushless motor application

| Type | Voltage (V) | | Current (A) | | Remarks | RoHS status | Status |
|--------------------|-------------|-----|-------------|---------|--|-------------|--------|
| | VCC | VSM | Peak | Average | | | |
| ECN30110F/P/PN/S | 15 | 250 | 1.4 | 1.0 | Power on/off sequence-free Embedded Hall amplifiers High-voltage diodes | C | M |
| ECN30114SP/SPV/SPR | 15 | 250 | 1.4 | 1.0 | Power on/off sequence-free Embedded Hall amplifiers High-voltage diodes | S.C | M |
| ECN30210F/P/PN/S | 15 | 600 | 1.5 | 0.7 | Power on/off sequence-free Embedded Hall amplifiers High-voltage diodes | C | M |
| ECN30214SP/SPV/SPR | 15 | 600 | 1.5 | 0.7 | Power on/off sequence-free Embedded Hall amplifiers High-voltage diodes | S.C | M |
| ECN30216F/P/R/S | 15 | 600 | 1.5 | 0.7 | Power on/off sequence-free Embedded Hall amplifiers High-voltage diodes Capacitors for top arm power supply | C | M |

◆Three Input, Six Input Series (Charge pump system) Brushless motor, Induction motor application

| Type | Voltage (V) | | Current (A) | | Remarks | RoHS status | Status |
|--------------------|-------------|-----|-------------|---------|---|-------------|--------|
| | VCC | VSM | Peak | Average | | | |
| ECN33101SP/SPV/SPR | 15 | 250 | 1.4 | 1.0 | 3-input | S.C | M |
| ECN33201SP/SPV/SPR | 15 | 500 | 1.5 | 0.7 | 3-input | S.C | M |
| ECN33202SP/SPV/SPR | 15 | 500 | 2.0 | 1.4 | 3-input | S.C | M |
| ECN30620F/P/PN | 15 | 600 | 2.0 | 1.0 | 6-input, Embedded high-voltage diodes | C | M |
| ECN30622F/P/PN/S/R | 15 | 600 | 3.0 | 2.0 | 6-input, Embedded high-voltage diodes | C | M |
| ECN30632SP/SPV/SPR | 15 | 600 | 3.0 | 2.0 | 6-input, Embedded high-voltage diodes | S.C | M |
| ECN30625S | 15 | 600 | 2.0 | 1.0 | 6-input, High-voltage diodes Capacitors for top arm power supply | C | M |
| ECN30624PN | 15 | 600 | 3.0 | 2.0 | 6-input, High-voltage diodes Capacitors for top arm power supply | C | M |

◆Three Input, Six Input Series (Bootstrap system) Brushless motor, Induction motor application

| Type | Voltage (V) | | Current (A) | | Remarks | RoHS status | Status |
|-----------|-------------|-----|-------------|------|---|-------------|--------|
| | VCC | VSM | Source | Sink | | | |
| ECN30502S | 15 | 620 | 0.25 | 0.4 | 6-input, Embedded high-voltage diodes, For sensor type | C | M |
| ECN30552S | 15 | 620 | 0.25 | 0.4 | 6-input, Embedded high-voltage diodes | C | M |

Not for New Design

Please ask sales representative in the reference about the substitution version part no.

◆VSP Input Series for driving motor

| Type | Voltage (V) | | Current (A) | | Substitution version part no. | RoHS status | Status |
|--------------------|-------------|-----|-------------|---------|--------------------------------------|-------------|--------|
| | VCC | VSM | Peak | Average | | | |
| ECN30107SP/SPV/SPR | 15 | 250 | 1.4 | 1.0 | ECN30110F/P/PN ECN30114SP/SPV/SPR | S.C | N |
| ECN30206SP/SPV/SPR | 15 | 500 | 1.5 | 0.7 | ECN30210F/P/PN/S | S.C | N |

◆Six Input Series for driving motor

| Type | Voltage (V) | | Current (A) | | Substitution version part no. | RoHS status | Status |
|--------------------|-------------|-----|-------------|---------|-------------------------------|-------------|--------|
| | VCC | VSM | Peak | Average | | | |
| ECN30603SP/SPV/SPR | 15 | 500 | 1.5 | 0.7 | ECN30620F/P/PN | S.C | N |

◆Three Input, Six Input Series (Bootstrap system)

| Type | Voltage (V) | | Current (A) | | Substitution version part no. | RoHS status | Status |
|------------|-------------|-----|-------------|------|-------------------------------|-------------|--------|
| | VCC | VSM | Source | Sink | | | |
| ECN33500FP | 15 | 620 | 0.25 | 0.4 | ECN30502S | C | N |
| ECN30551FP | 15 | 620 | 0.25 | 0.4 | ECN30552S | C | N |

Discontinued

Please ask sales representative in the reference about the substitution version part no.

◆VSP Input Series for driving motor

| Type | Voltage (V) | | Current (A) | | Substitution version part no. | RoHS status | Status |
|--------------------|-------------|-----|-------------|---------|--------------------------------------|-------------|--------|
| | VCC | VSM | Peak | Average | | | |
| ECN30105SP/SPV/SPR | 15 | 250 | 1.8 | 1.0 | ECN30110F/P/PN ECN30114SP/SPV/SPR | S.C | D |
| ECN30102SP/SPV/SPR | 15 | 250 | 1.2 | 0.7 | ECN30110F/P/PN ECN30114SP/SPV/SPR | S.C | D |
| ECN3018SP/SPV/SPR | 15 | 250 | 1.8 | 1.0 | ECN30110F/P/PN ECN30114SP/SPV/SPR | S.C | D |
| ECN30108P | 15 | 250 | 1.4 | 1.0 | ECN30110F/P/PN ECN30114SP/SPV/SPR | S.C | D |
| ECN30207SP/SPV/SPR | 15 | 500 | 2.0 | 1.4 | ECN30210F/P/PN/S | S.C | D |
| ECN30204SP/SPV/SPR | 15 | 500 | 1.5 | 0.7 | ECN30210F/P/PN/S | S.C | D |
| ECN3021SP/SPV/SPR | 15 | 500 | 1.0 | 0.7 | ECN30210F/P/PN/S | S.C | D |
| ECN3022SP/SPV/SPR | 15 | 500 | 1.5 | 0.7 | ECN30210F/P/PN/S | S.C | D |
| ECN30208P | 15 | 500 | 1.5 | 0.7 | ECN30210F/P/PN/S | S.C | D |

◆Six Input Series for driving motor

| Type | Voltage (V) | | Current (A) | | Substitution version part no. | RoHS status | Status |
|--------------------|-------------|-----|-------------|---------|-------------------------------|-------------|--------|
| | VCC | VSM | Peak | Average | | | |
| ECN30611SP/SPV/SPR | 15 | 250 | 1.4 | 1.0 | ECN30620F/P/PN | S.C | D |
| ECN3061SP/SPV/SPR | 15 | 250 | 1.8 | 1.0 | ECN30620F/P/PN | S.C | D |
| ECN30604SP/SPV/SPR | 15 | 500 | 2.0 | 1.4 | ECN30622F/P/PN | S.C | D |
| ECN30601SP/SPV/SPR | 15 | 500 | 1.5 | 0.7 | ECN30620F/P/PN | S.C | D |
| ECN3063SP/SPV/SPR | 15 | 500 | 1.0 | 0.7 | ECN30620F/P/PN | S.C | D |
| ECN3064SP/SPV/SPR | 15 | 500 | 1.5 | 0.7 | ECN30620F/P/PN | S.C | D |
| ECN3067SL/SLV/SLR | 15 | 500 | 5.0 | 2.5 | | — | D |
| ECN30671SP/SPV/SPR | 15 | 500 | 3.0 | 1.5 | ECN30622F/P/PN | S.C | D |

Discontinued

Please ask sales representative in the reference about the substitution version part no.

◆ Gate Driver IC (Predriver IC for IGBT or Power MOSFET Drive)

VSP input, Three input, Six input series

| Type | Voltage (V) | | Current (A) | | Substitution version part no. | RoHS status | Status |
|------------|-------------|-----|---------------------------------------|---------------------------------------|-------------------------------|-------------|--------|
| | VCC | VSM | Source | Sink | | | |
| ECN30300S | 15 | 250 | top arm 0.10 bottom arm 0.20 | top arm 0.25 bottom arm 0.20 | | C | D |
| ECN30301S | 15 | 250 | top arm 0.10 bottom arm 0.20 | top arm 0.25 bottom arm 0.20 | | C | D |
| ECN3030F | 15 | 250 | top arm 0.05 bottom arm | top arm and bottom arm | ECN30551FP | C | D |
| ECN3031F | 15 | 250 | bottom arm 0.2 | 0.2 | ECN30551FP | C | D |
| ECN3035F | 15 | 500 | top arm 0.05 bottom arm | top arm and bottom arm | ECN30551FP | C | D |
| ECN3036F | 15 | 500 | bottom arm 0.2 | 0.2 | ECN30551FP | C | D |
| ECN3053F | 15 | 620 | 0.25 | 0.5 | ECN30551FP | C | D |
| ECN3054F | 15 | 620 | 0.25 | 0.5 | ECN30551FP | C | D |
| ECN30531F | 15 | 620 | 0.25 | 0.5 | ECN30551FP | C | D |
| ECN30541F | 15 | 620 | 0.25 | 0.5 | ECN30551FP | C | D |
| ECN33550FP | 15 | 620 | 0.25 | 0.4 | ECN33500FP, ECN30551FP | C | D |

High Voltage Analog Switch (HVMUX)

◆Ultrasound Imaging System/NDT application

| Type | Voltage (V) | | Clock (MHz) | Input Signal Range(V) | Analog Switch On Resistance | Channel | Bleed Resistor | PKG | RoHS status | Status |
|-----------|-------------|---------|--------------------|-----------------------|-----------------------------|---------|----------------------------------|--------|-------------|--------|
| | VDD | VPP-VNN | | | | | | | | |
| ECN3290TF | 5 | 220 | 10 | VNN+10~VPP-10 | 22Ω (typ.) | 8 | No | LQFP48 | C | M |
| ECN3294TF | 3.3/5 | 220 | 20 | VNN+10~VPP-10 | 19Ω (typ.) | 8 | User selectable (one side of SW) | LQFP48 | C | M |
| ECN3296TF | 3.3/5 | 220 | 30 @5V 20 @3.3V | VNN~VPP | 19Ω (typ.) | 16 | No | LQFP48 | C | M |
| ECN3297TF | 3.3/5 | 220 | 30 @5V 20 @3.3V | VNN~VPP | 19Ω (typ.) | 16 | Yes (Both side of SW) | LQFP48 | C | M |
| ECN3298TF | 3.3/5 | 220 | 30 @5V 20 @3.3V | VNN~VPP | 19Ω (typ.) | 16 | Yes (SW_B side) | LQFP48 | C | M |

HVMUX (No dedicated high voltage power supplies required)

◆Ultrasound Imaging System/NDT application

| Type | VDC (V) | Logic I/F(V) | Clock (MHz) | Input Signal Range(V) | Analog Switch On Resistance | Channel | Bleed Resistor | PKG | RoHS status | Status |
|------------|---------|--------------|--------------------|-----------------------|-----------------------------|---------|-----------------------|--------|-------------|--------|
| ECN32910TF | 10~15 | 3.3/5 | 30 @5V 20 @3.3V | -100~+100 | 18Ω (typ.) | 16 | No | LQFP48 | C | M |
| ECN32911TF | 10~15 | 3.3/5 | 30 @5V 20 @3.3V | -100~+100 | 18Ω (typ.) | 16 | Yes (Both side of SW) | LQFP48 | C | M |

Discontinued

High Voltage Analog Switch (HVMUX)

◆Ultrasound Imaging System/NDT application

| Type | Voltage(V) | | Clock (MHz) | Input Signal Range(V) | Analog Switch On Resistance | Channel | Bleed Resistor | PKG | RoHS status | Status |
|--------------|------------|---------|-------------|-----------------------|-----------------------------|---------|-----------------------|----------------|-------------|--------|
| | VDD | VPP-VNN | | | | | | | | |
| ECN3290PL/FN | 5 | 220 | 10 | VNN+10~VPP-10 | 22Ω (typ.) | 8 | No | QFJ28 QFN28 | C | D |
| ECN3292TF | 5 | 220 | 10 | VNN+10~VPP-10 | 19Ω (typ.) | 8 | No | LQFP48 | C | D |
| ECN3293TF | 3.3/5 | 220 | 20 | VNN+10~VPP-10 | 19Ω (typ.) | 8 | Yes (Both side of SW) | LQFP48 | C | D |

HVMUX (No dedicated high voltage power supplies required)

◆Ultrasound Imaging System/NDT application

| Type | VDC (V) | Logic I/F(V) | Clock (MHz) | Input Signal Range(V) | Analog Switch On Resistance | Channel | Bleed Resistor | PKG | RoHS status | Status |
|------------|---------|--------------|--------------------|-----------------------|-----------------------------|---------|-----------------------|--------|-------------|--------|
| ECN32910FN | 10~15 | 3.3/5 | 30 @5V 20 @3.3V | -100~+100 | 18Ω (typ.) | 16 | No | WQFN48 | C | D |
| ECN32911FN | 10~15 | 3.3/5 | 30 @5V 20 @3.3V | -100~+100 | 18Ω (typ.) | 16 | Yes (Both side of SW) | WQFN48 | C | D |

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■ HITACHI POWER SEMICONDUCTOR DEVICE OVERSEAS REPRESENTATIVES

United States of America

Hitachi America, Ltd.
Power Semiconductor Device Division
707 Westchester Ave., Suite LL07, White Plains, NY 10604-3102
Telephone: <1>(914)364-3709
Webpage: <https://www.hitachi.us/psdd/>

Korea

Hitachi Korea Ltd.
10F, Young Poong Bldg., 41, Cheonggyecheon-ro,
Jongno-gu, Seoul, 03188, Korea
Telephone: <82>(2) 3210-3596
Fax : <82>(2) 6322-8599

United Kingdom

Hitachi Europe Ltd. Power Device Division
Sefton Park, Bells Hill, Stoke Poges
Buckinghamshire, SL2 4HD
Telephone: <44>(1628) 585151
Mail : pdd@hitachi-eu.com
Webpage : <http://pdd.hitachi.eu/>

Thailand

Hitachi Asia (Thailand) Co., Ltd.
12th Floor, Ramaland Bldg, No.952, Rama IV Road, Suriyawongse,
Bangrak, Bangkok 10500, Thailand
Telephone: <66>(2) 632-9292
Fax : <66>(2) 632-9299

Shanghai

Hitachi (China) Ltd. Shanghai Branch
18th Floor, Rui Jin Building, No.205, Maoming Road (S)
Shanghai 200020, China
Telephone: <86>(21) 6472-1002(Ext.1364)
Fax : <86>(21) 6473-9080

India

Hitachi India Pvt. Ltd.
Tower B, World Mark 1, Aerocity, New Delhi-110037, India
Telephone: <91>(11) 4060-5252
Fax : <91>(11) 4060-5253

Hong Kong

Hitachi East Asia Ltd.
8/F, Building 20E, Phase 3, Hong Kong Science Park,
Pak Shek Kok, New Territories, Hong Kong
Telephone: <852>2735-9218
Fax : <852>2375-3192

■ For inquiries relating to the product, please contact above overseas representatives or below.

Hitachi Power Semiconductor Device, Ltd.

Sales Department, Business Management Division
Akihabara Daibiru Building, 18-13 Soto-Kanda 1-chome
Chiyoda-ku, Tokyo, 101-8608 Japan

TEL: <81>(3)4564-5147 FAX: <81>(3)4564-6251
URL; <http://www.hitachi-power-semiconductor-device.co.jp/en/>

お問合せ先

株式会社 日立パワーデバイス

東京本社

〒101-8010 東京都千代田区外神田一丁目18番13号(秋葉原ダイビル)

(03) 4564-5147

ホームページ : <http://www.hitachi-power-semiconductor-device.co.jp>

■製品に対する問い合わせは、上記の担当営業所または下記へどうぞ。

株式会社日立パワーデバイス ビジネスマネジメント本部

〒101-8608 東京都千代田区外神田一丁目18番13号(秋葉原ダイビル) TEL (03) 4564-5147 FAX (03) 4564-6251

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