

Bellnix® Non-Isolated Type POL DC-DC converter with DIGITAL control

Output Accuracy ±1%	Sequence Function Sequential Ratio-Metric
NEW Bellnix	RoHS Compliance
	DIGITAL Control



This is the world standard size! 10A BDZ Series

Digital Control POL DC-DC Converter/10A BDZ Series

Super low cost, High efficiency of 94%, POL DC-DC converter

Input: +5V,+12V

Output: +1.5V (+0.9V, 1.2V, 1.8V, 2.5V, 3.3V)

- Setting can be changed by serial communication(PMBus).
- Turn-on and Turn-off sequence may be set.
- When not using the terminal for communication, setting is possible by external resistor.
- Output voltage accuracy ±1%(typ.)
- Very high efficiency 94%
- Low cost
- Heat sink is not required
- Ultra small type
- Remote ON/OFF control
- Wide range of input voltage (Corresponds to the input of 5V to 12V)
- Over current protection
- Under Voltage Lock Out
- Non-Isolated type between input and output.
- Output voltage adjustable function
- Built-in frequency synchronous function
- Built-in frequency adjustable function
- Adjustable Output Voltage
- High speed load response
- High reliability, high performance
- Operating temp Range
-40°C to +85°C
(Temp Derating Required)
(Cooling air flow may be required)
- RoHS Compliance

Models 10A BDZ series	Input V Vdc	Output V Vdc	Output I A	Line Reg. %(typ.)	Load Reg. %(typ.)	Ripple Noise mVpp(typ.)	Efficiency %(typ)
BDZ-1.5S10R0D	+12V (4.5-14.0)	1.5 (0.69-3.3)	0 to 10	0.2	0.1	20	94/92
BDZ-1.5S10R0M	+12V (4.5-14.0)	1.5 (0.69-3.3)	0 to 10	0.2	0.1	20	94/92

Note 1. The input voltage inside the () indicates the range of the input voltage. When using input voltage of 4.5V, Conditions apply.

Note 2. The output voltage inside the () indicates the adjustable range.

Note 3. Depending on the input/output conditions, temp derating and cooling air flow may be required.

Note 4. Efficiency is when the input is 5V/12V, the output is 1.5V and the current is rated.

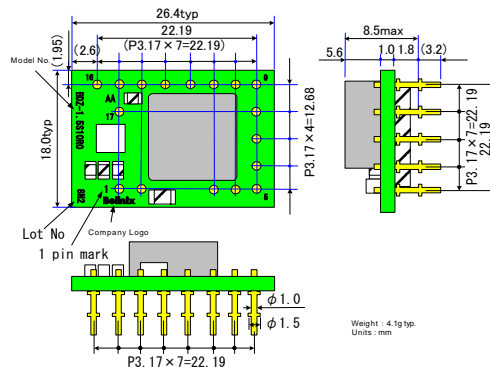
Note 5. Output ripple noise is when the input is 12V, the output is 1.5V and the output current is rated.

(measured at 20MHz bandwidth)

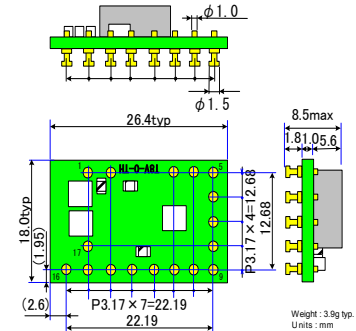
Note 6. The output voltage is 0.69V(typ.) at factory default.

<Outline>

BDZ-1.5S10R0D(DIP type)



BDZ-1.5S10R0M(SMD type)

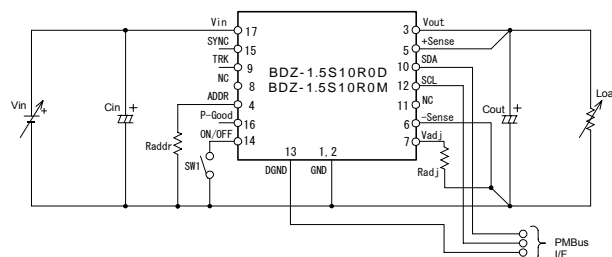


DIP/SMD pin function

Pin	Name	Function	Pin	Name	Function
1,2	GND	Ground	10	SDA	Communication feature
3	Vout	Output voltage	11	NC	No connection
4	ADDR	Address setting	12	SCL	Communication Feature
5	+Sense	(+)sensing	13	DGND	communication ground
6	-Sense	(-)sensing	14	ON/OFF	ON/OFF control
7	V.adj	Adjustable output voltage	15	SYNC	Synchronous signal input
8	NC	No connection	16	PG	Power Good
9	TRK	Tracking	17	Vin	Input Voltage

Note : Pin numbers, except the 1 pin mark, are not shown on the product.

<Standard Connection Diagram>



- SW1 : When short, output will switch OFF.
- Vadj :By adding Radj, the output may be adjusted.
- By using SCL, SDA, DGND, digital communications is possible.
(When not using, the existing external

- Note

This catalogue is an outline of the products.
When designing, be sure to refer to the data sheets.

*The converter sets output voltage and other settings by an external resistor and reads the resistance value at start up. Once this is done, the settings can not be changed.