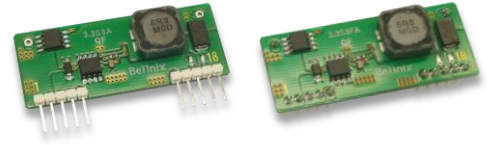


Bellnix High Efficiency, Ultra Small Size, Non-Isolated Type POL DC-DC Converter

3A/4A BSI Series



Ultra High Efficiency (90-95%), Minimum Size Step-Down DC-DC Converter

Input: +5V, +12V

Input: +6V, +12V, +15V

Output: +3.3V (+1.8V to +3.3V)

Output: +5.0V (+3.0V to +5.0V)

- Input Voltage Range 4.75V-16.5V
- Output Voltage Range 1.8V-5V
- Latest Technology, Synchronous Rectification Circuit
- Efficiency 90% to 95%
- Adjustable Output Voltage
- Non-Isolated Type Converter
- Short Circuit, Over-Current Protection
- No Electrolytic Capacitor used
- No Tantalum Capacitor used
- Heat Sink Not Required
- Minimum Size
- Remote ON/OFF Control
- Low Standby Current 100µA (3A output type product)
- MTBF 1,000,000Hrs
- Operating Temp Range -10°C to +70°C (Temp Derating required)
- High Reliability, High Performance
- RoHS Compliance

Models	Input V Vdc	Output V Vdc	Output I A	Line Reg % (typ.)	Load Reg % (typ.)	Ripple/Noise mVpp (typ.)	Efficiency % (typ.)
BSI-3.3S3R0A	4.75-13.6	3.3 (1.8-3.3)	0-3	0.2	0.3	50	91
BSI-3.3S3R0FA							
BSI-5.0S3R0A	6.0-16.5	5.0 (3.0-5.0)		0.2	0.2		95
BSI-5.0S3R0FA							

Note 1: The output voltage inside the () indicates the adjustable range.

Note 2: External capacitors are required.

Note 3: Suffix "A" stands for version.

<Outline> (SIP type)

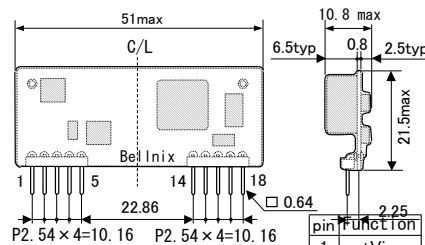
BSI-3.3S3R0A (t=8.8typ.)

BSI-5.0S3R0A (t=8.8typ.)

(DIP type)

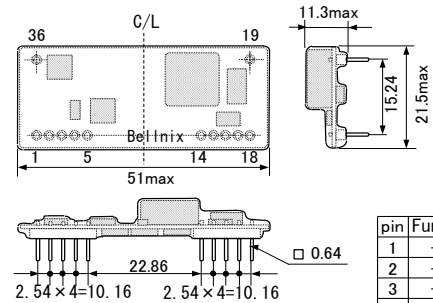
BSI-3.3S3R0FA (h=9.3typ.)

BSI-5.0S3R0FA (h=9.3typ.)



Weight: 10g typ.
Units: mm

pin	Function
1	+Vin
2	+Vin
3	-Vin
4	-Vin
5	on/off
14	V.ADJ
15	-Vout
16	-Vout
17	+Vout
18	+Vout



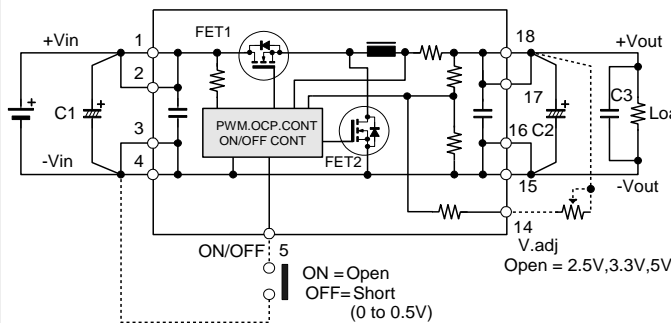
Weight: 10g typ.
Units: mm

pin	Function
1	+Vin
2	+Vin
3	-Vin
4	-Vin
5	on/off
14	V.ADJ
15	-Vout
16	-Vout
17	+Vout
18	+Vout
19	NC
36	NC

- Note: This catalogue is an outline of the products. When designing, be sure to refer to the data sheets.
- Externally coated by resinous
- Tolerances unless otherwise specified: ±0.5

- Externally coated by resinous
- Tolerances unless otherwise specified: ±0.5

<Standard Connection Diagram>



- External Capacitors (SH, FA type OS-CON Recommended)

- 3.3V, 5V Output Product
- C1=100µF20WVx2pcs or more
- C2=220µF10WVx1pcs or more

- ON/OFF Control

ON/OFF control is controlled by opening and shortening between 5pin(ON/OFF) and 3, 4pin (-Vin).

- Adjustable Output Voltage

The output voltage is adjusted by connecting a resistor between 14pin (V.ADJ) and 17, 18pin (+Vout).

- When 14pin is open, the rated output voltage is as follows:
- BSI-3.3S = +3.3V±5%
- BSI-5.0S = +5.0V±5%

- A voltage difference of 0.6V or more between the Input/ Output is required for output current 4A type.