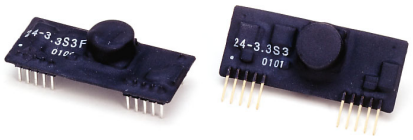
3A BSI-24 Series

RoHS Compliance



Ultra High Efficiency (87%, 91%), Minimum Size Step-Down DC-DC Converter

Input: +8V, +12V, +15V, +24V Output: +3.3V (+1.2V to +5.1V)

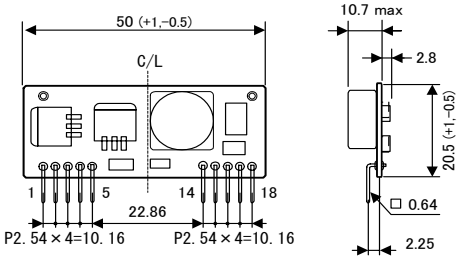
- Efficiency 87%-91%
- Input Voltage Range +8V to +27V
- Output Voltage Range +1.2V to +5.1V
- Latest Technology,Synchronous Rectification Circuit
- Adjustable Output Voltage
- Non-Isolated Type Converter
- Short Circuit, Over-Current Protection
- No Electrolytic Capacitor used No Tantalum Capacitor used
- Heat Sink Not required
- Minimum Size
- Remote ON/OFF Control
- MTBF 1,000,000Hrs
- High Reliability, High Performance
- Operating Temp Range -10°C to +70°C (Temp Derating Required)
- RoHS Compliance

Models BSI Series	Input V Vdc	Output V Vdc	Output I A	Line Reg %(typ.)	Load Reg %(typ.)	Ripple/Noise mVpp(typ.)	Efficiency %(typ.)
BSI24-3.3/5S3R0	8-27	3.3 (1.2-5.1)	0-3	0.3	3	40 (50)	87 (91)
BSI24-3.3/5S3R0F							

Note 1: The output voltage inside the ( ) indicates the adjustable range.
Note 2: The values inside ( ) for Ripple noise and efficiency are when the output voltage is 5V.
Note 3: External capacitors are required.

<Outline>

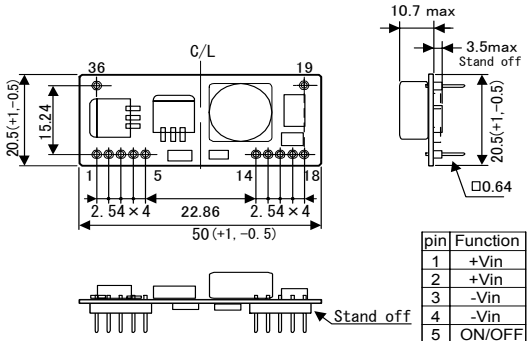
(SIP Type)
BSI24-3.3/5S3R0



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

(DIP Type)
BSI24-3.3/5S3R0F

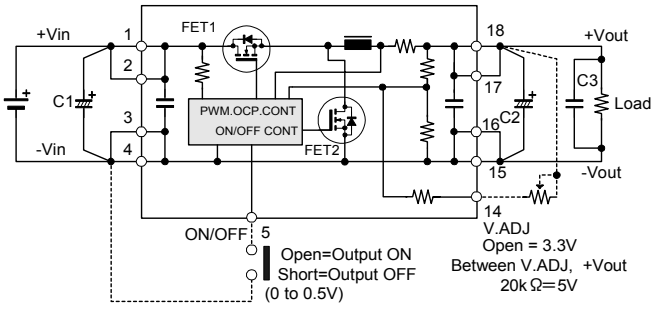


pin	Function
1	+Vin
2	+Vin
3	-Vin
4	-Vin
5	ON/OFF
14	V.ADJ
15	-Vout
16	-Vout
17	+Vout
18	+Vout
19	NC
36	NC

Weight: 11g typ.
Units: mm

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

<Standard Connection Diagram>



- External Capacitors

C1 should be 330μF or higher and an impedance of 81mΩ (20°C/ 100kHz) or below.
Recommend: Electrolytic Capacitor
C2=150μF(ESR=28mΩ or below) ×2 or more
Recommend: OS-CON
To set the output voltage for 3.1V or lower, use 3 OS capacitors (different from the one written above).

- ON/OFF Control

ON/OFF is controlled by opening and shortening between the 5pin(ON/OFF) and 3, 4pin (-Vin).
Be sure to maintain a slew rate of 0.03V/ μs or more for 5 pin while the voltage is around 1V during start up and shut down.

- Adjustable Output Voltage

The output voltage is adjustable by connecting a resistor between 14pin (V.ADJ) and 17, 18pin (+Vout).
When 14pin is open, the rated output voltage is as follows
Output = +3.3V±5%