



Minimal derating in this size !

10A/16A/25A BST-L (SIP) Series

Low Cost, DOSA Compatible, POL DC-DC Converter

Input: +2.4V to +5.5V

Output: +0.7525V (+0.7525V to +3.63V)

Input: +6.0V to +14.0V

Output: +0.7525V (+0.7525V to +5.5V)

- Remote ON/OFF Control
- Industry Standard Package
- High Efficiency
- Adjustable Output Voltage
- Over Current Protection
- Under Voltage Lock Out
- Active Temp -40°C to +85°C (Temp Derating Required.)
- Non-Isolated Converter
- RoHS Compliance
- DOSA Compatible

Voltage can be optionally set with an external resistors (ex. 1V, 1.2V, 1.5V, 1.8V, 2.5V, 3.3V, 5V)

| Models BST-L (SIP) Series | Input V Vdc | Output V Vdc | Output I A | Line Reg. %(typ.) | Load Reg. %(typ.) | Ripple Noise mVpp(typ.) | Efficiency %(typ.) |
|------------------------------|----------------|-------------------------------|---------------|----------------------|----------------------|----------------------------|-----------------------|
| BST04L-0.7S10PDS | 2.4 to 5.5 | 0.7525 (0.7525 to 3.63) | 0 to 10 | 0.6 | 1.0 | 25 | 95.5 |
| BST04L-0.7S16PDS | | | 0 to 16 | | | 20 | 95.5 |
| BST04L-0.7S25PDS | | | 0 to 25 | | | 20 | 94.0 |
| BST12L-0.7S10PDS | 6.0 to 14.0 | 0.7525 (0.7525 to 5.5) | 0 to 10 | 0.2 | 0.8 | 25 | 95.2 |
| BST12L-0.7S16PDS | | | 0 to 16 | | | 40 | 94.0 |
| BST12L-0.7S25PDS | | | 0 to 25 | | | 25 | 95.0 |

*Note 1: Output voltage inside the () indicates the adjustable range.

*Note 2: Input/output voltage requires voltage difference

BST04L : $V_{out} \leq 1.8V$, $V_{in} = 2.4$ to $5.5V$

$1.8V < V_{out} \leq 2.5V$, $V_{in} = 3.3$ to $5.5V$

$V_{out} > 2.5V$, $V_{in} = 4.5$ to $5.5V$

BST12L : $V_{out} \leq 3.8V$, $V_{in} = 6$ to $14V$

$V_{out} > 3.8V$, $V_{in} = 8$ to $14V$

*Note 3: Ripple noise and efficiency values are when they are under the following conditions.

BST04L : Input voltage 5V, output voltage 3.3V, the rated load.

BST12L : Input voltage 12V, output voltage 5V, the rated load.

*Note 4: Ripple noise is measured by 20MHz bandwidth, with the following ceramic capacitors.

BST04L-10A, BST12L-25A : $47\mu F \times 4$ at input

: $47\mu F \times 2 + 1\mu F$ at output

BST04L-16A/25A, BST12L-16A : $47\mu F \times 4$ at input

: $47\mu F \times 4 + 1\mu F$ at output

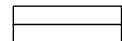
BST12L-10A : $47\mu F \times 2$ at input

: $47\mu F \times 2 + 1\mu F$ at output

*Note 5: Depending on the ambient temp condition, cooling air flow may be required.

<Derating Curve>

<Outline>



<Standard Connection Diagram>

BST04L-10A, BST12L-25A
 C1 : $47\mu F \times 4$ (Ceramic Capacitor)
 C2 : $1\mu F$ (Ceramic Capacitor)
 C3 : $47\mu F \times 2$ (Ceramic Capacitor)

BST04L-16A/25A, BST12L-16A
 C1 : $47\mu F \times 4$ (Ceramic Capacitor)
 C2 : $1\mu F$ (Ceramic Capacitor)
 C3 : $47\mu F \times 4$ (Ceramic Capacitor)

BST12L-10A/16A
 C1 : $47\mu F \times 2$ (Ceramic Capacitor)
 C2 : $1\mu F$ (Ceramic Capacitor)
 C3 : $47\mu F \times 2$ (Ceramic Capacitor)

- SW : When short, the output is off.

- Trim: When open, the output voltage is 0.7525V.

- When adjusting the output voltage, connect RTrim between Trim pin and GND.

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