

Wide Input Voltage Range, Save Mounting Space!



3 Watt BTB Series

Small Size Single and Dual Output DC-DC Converters/BTB 3Watt Series

The Fifth Generation, Ultra Small Size, Isolated Type DC-DC Converter

Input: 5V, 12V, 24V, 48V

Output: 3.3V, 5V, 12V, 15V, ±12V, ±15V

- Adjustable Output Voltage
- Remote ON/OFF Control
- Dual Power Supply Usable As Single Power Supply
- Isolation Voltage AC500V
- Over-Current Protection
- Low Input Voltage Protection
- Over Input Current Protection Element
- No Electrolytic Capacitor, No Tantalum Capacitor
- MTTF 2,000,000Hrs
- Metallic Shield Cover
- Halogen-Free PCB Used
- Between Primary and Secondary combination capacitance is approx. 40-140pF
- Operating Temp. Range -40°C to +85°C (Temp. Derating required)
- RoHS Compliance
- UL/C-UL Recognition

Models BTB Series	Input V Vdc	Output V Vdc	Output I mA	Line Reg. mV(max.)	Load Reg. mV(max.)	Ripple Noise mVpp(typ.)	Efficiency %(typ.)
BTB05-03S80	4.5-9	3.3	0-800	20	40	40	73
BTB05-05S60		5	0-600				77
BTB05-12S25		12(15)	0-250 (200)	40	100		82
BTB05-12W12		±12(±15)	0-125 (100)	80	600		80
BTB12-03S80	9-18	3.3	0-800	20	40	40	74
BTB12-05S60		5	0-600				79
BTB12-12S25		12(15)	0-250 (200)	40	100		82
BTB12-12W12		±12(±15)	0-125 (100)	80	600		81
BTB24-03S80	18-36	3.3	0-800	20	40	40	73
BTB24-05S60		5	0-600				78
BTB24-12S25		12(15)	0-250 (200)	40	100		82
BTB24-12W12		±12(±15)	0-125 (100)	80	600		81
BTB48-03S80	36-76	3.3	0-800	20	40	40	73
BTB48-05S60		5	0-600				79
BTB48-12S25		12(15)	0-250 (200)	40	100		81
BTB48-12W12		±12(±15)	0-125 (100)	80	600		80

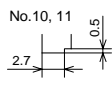
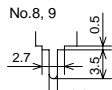
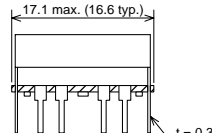
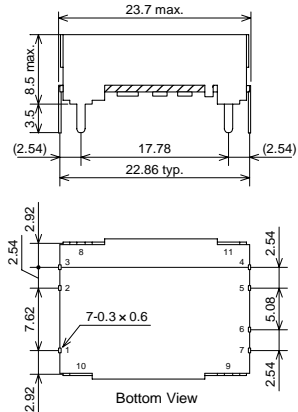
Note 1: Specify the type in the column of the model name. D: DIP type, S: SMD type
Ex.) DIP type: BTB05-03S80D, SMD type: BTB05-03S80S

Note 2: The output voltage inside () is when Vadj. and -Vout is short. The output voltage adjustable range are 3.15-3.6V (3.3V products), 4.75-6V (5V products), 11.4-15V (12V products) respectively.

Note 3: The output current inside () is when adjusted to the max. output voltage.

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

<Outline> (DIP type)



The above diagrams are the front view of 8-11 pin.

BTB-S Series

Pin	Function
1	+Vin
2	ON/OFF
3	-Vin
4	NC
5	-Vout
6	Vadj
7	+Vout
8,9	Case Connection
10,11	Stand Off

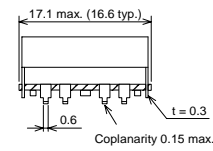
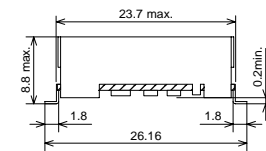
*8-11 pin are only available for DIP type.

BTB-W Series

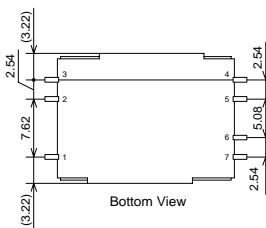
Pin	Function
1	+Vin
2	ON/OFF
3	-Vin
4	-Vout
5	Common
6	Vadj
7	+Vout
8,9	Case Connection
10,11	Stand Off

*8-11 pin are only available for DIP type.

<Outline> (SMD type)

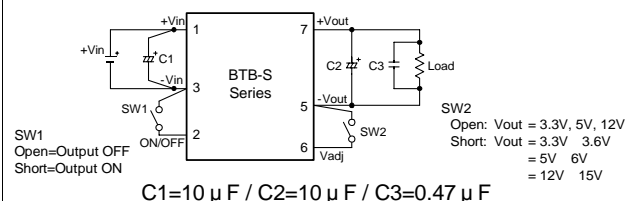


Tolerances unless otherwise specified: ±0.5
Dimensions: mm



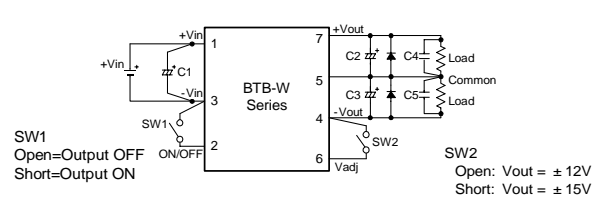
<Standard Connection Circuit Diagram>

BTB-S Series (3.3V,5V,12V,15V)



- External capacitors have limit of capacitance. Please refer to data sheets.
- Rated output voltage, with 6pin open. Output voltage is changeable as shown here above, with Vadj and -Vout short.

BTB-W Series (±12V,±15V)



C1=10 μF / C2,C3=10 μF / C4,C5=0.47 μF