

DC/DC 15 to 25 Watts Single Output B Series

- Ultra wide 4:1 input range
- Efficiency to 85%
- Six-sided continuous shielding
- Regulated output

The new B Series is a family of ultra wide input range, high efficiency, 15 to 30 Watt DC/DC Converters. These economically priced converters offer a 4:1 input range, input filtering to reduce input reflected ripple current protecting the supply bus from unwanted noise, and efficiencies to 85%. Other key features include: overvoltage protection, remote on/off control, external adjustment of output ($\pm 10\%$), and continuous short circuit protection. All packaged in a six-sided metal case measuring only 2.5" x 3" x 0.4" for 15 - 24 Watts and 2.5" x 3" x 0.83" for 25 Watts and up.

Applications

The B Series is ideally suited for portable battery, automotive and other applications demanding small size, high efficiency, where input to output isolation is not required.



Specifications

INPUT

Voltage Range

9 - 36 Vdc - See Ordering Information

Filtering
Reflected Ripple

LC Type
50 mA p-p (typ.)

OUTPUT

Voltage Tolerance
Ripple and Noise
Overvoltage Protection
Short Circuit Protection
Temperature Coefficient
Trim Adjustability

$\pm 1\%$
50 mV p-p (max.)
All Models
Current Limit
0.02%/°C max.
 $\pm 10\%$ (typ.)

GENERAL

Regulation: Line/Load
Efficiency
I/O Isolation
Switching Frequency
Remote On/Off Control

0.5% / 0.5%
to 85%
Not galvanically isolated
60 - 65 kHz
All Models

ENVIRONMENTAL

Operating Temperature Range
Storage Temperature Range
Cooling

-25°C to +71°C - No Derating
-40°C to +105°C
Free-air Convection

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All specifications are typical at nominal line and full load at 25°C unless otherwise noted.

B Series Ordering Information

ASTEC AMERICA/SEMICON

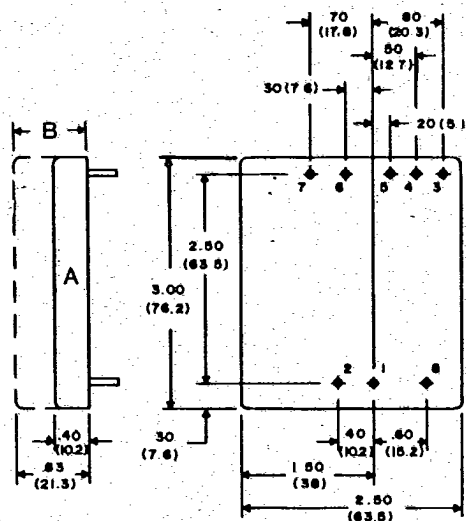
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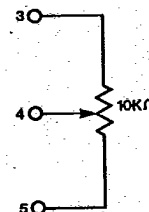
Input Voltage		Output Voltage	Output Current	Model Number	Case
Nominal	Range				
18 V	9-36 V	5 Vdc	3000 mA	BA11-300-18	A
18 V	9-36 V	5 Vdc	5000 mA	BA11-500-18	B
18 V	16-36 V	12 Vdc	2000 mA	BA12-200-18	A
18 V	18-36 V	15 Vdc	1500 mA	BA13-150-18	B

Dimensions and Connections



PIN CONNECTIONS

- PIN
1. + Input
 2. - Input
 3. Trim Down
 4. Output Trim
 5. Trim Up
 6. + Output
 7. - Output
 8. TTL Remote Shutdown



External Output Trimming: Output may be externally trimmed ($\pm 10\%$) with a trimpot as shown.

NOTES:

1. Eight pins 0.040 (1.0) dia. x 0.20 (5.1) Lg Min.

Remote on/off control (pin 8)

Control common referenced to Input minus (pin 2)

Logic compatibility - open collector TTL

On greater than 2.4 Vdc or open circuit

Off less than 1.2 Vdc

*Measured with 3.3 MF 25V tantalum capacitor across each output.
Specifications subject to change without notice.

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