

AMPSS™
MICRO REGULATOR

AA10A Series
10W max
24V or 48V inputs
Single / Dual / Triple outputs



The AA10A DC-DC converter series is part of Astec's family of advanced modular power supply components. Featuring high reliability and convenient control functions, these modules are designed to reduce product development time and enhance system performance. The AA10A are medium power converters offering single, dual and triple outputs in a compact package. These units are ideally suited for Telecommunications, Industrial, Computer and Distributed Power system applications having a widely varying input voltage.



SPECIAL FEATURES

- 10 watts
- Singles, duals and triples
- Fixed frequency switching
- Isolated output
- Surface mount internal construction
- Six-sided shielding
- Wide 4:1 input range
- 1% line / 2% load regulation (main output)
- Small size 2.0 x 2.0 x 0.40 inches

ENVIRONMENTAL

Operating Temperature (ambient) -25 to +71°C (no derating)
Storage Temperature -25 to +105°C
Cooling Method convection

ELECTRICAL SPECIFICATIONS

Input

Input Range 9 to 36 VDC
20 to 72 VDC
Efficiency 80 - 85% typical
Input Ripple Current <100 mA p-p

Control

Voltage Adjust Input 90 to 110% V_o using external resistor or trim pot
Enable TTL compatible
on = 2.5 to 5.5VDC or open
circuit
off = 0 to 0.8VDC

Output

Voltage Tolerance (factory set-point) ±1% (output 1)
±3% (output 2 and output 3)
Line Regulation 1% (output 1)
4% (output 2 and output 3)
Load Regulation 2% (output 1)
6% (output 2 and output 3)
Noise/Ripple 75mV p-p (output 1)
100mV p-p (output 2 and output 3), under specified conditions
Output Voltage Adjust Range ±10% of nominal (single and dual output models only)
Output Voltage Protection zener clamp
Short Circuit power cycling

NOTES

All specifications are typical at nominal input and full load unless otherwise noted.

Specifications subject to change without notice.

Mechanical drawings for reference only.

ORDERING INFORMATION

Input Voltage	Output 1 Voltage	Output 2 Voltage	Output 3 Voltage	Maximum Power	Model Number
9-36V	5V @ 2A			10W	AA10A-024L-050S
9-36V	12V @ 0.83A			10W	AA10A-024L-120S
9-36V	15V @ 0.67A			10W	AA10A-024L-150S
9-36V		12V @ 0.42A	-12V @ 0.42A	10W	AA10A-024L-120D
9-36V		15V @ 0.33A	-15V @ 0.33A	10W	AA10A-024L-150D
9-36V	5V @ 1A	12V @ 0.21A	-12V @ 0.21A	10W	AA10A-024L-050T120
9-36V	5V @ 1A	15V @ 0.17A	-15V @ 0.17A	10W	AA10A-024L-050T150
20-72V	5V @ 2A			10W	AA10A-048L-050S
20-72V	12V @ 0.83A			10W	AA10A-048L-120S
20-72V	15V @ 0.67A			10W	AA10A-048L-150S
20-72V		12V @ 0.42A	-12V @ 0.42A	10W	AA10A-048L-120D
20-72V		15V @ 0.33A	-15V @ 0.33A	10W	AA10A-048L-150D
20-72V	5V @ 1A	12V @ 0.21A	-12V @ 0.21A	10W	AA10A-048L-050T120
20-72V	5V @ 1A	15V @ 0.17A	-15V @ 0.17A	10W	AA10A-048L-050T150

Please contact Astec for information on other output voltages, power ranges and configurations.

PIN ASSIGNMENTS

Single Output

1. +Vin
2. -Vin
3. No pin
4. Control (Enable)
5. No pin
6. Output 1
7. COM (O/P Common)
8. Trim

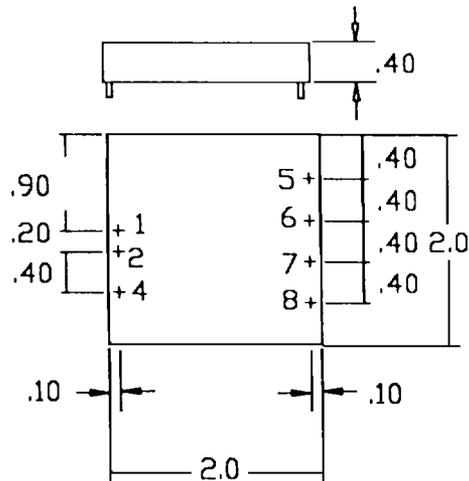
Dual Output

1. +Vin
2. -Vin
3. No pin
4. Control (Enable)
5. Output 2
6. COM (O/P Common)
7. Output 3
8. Trim

Triple Output

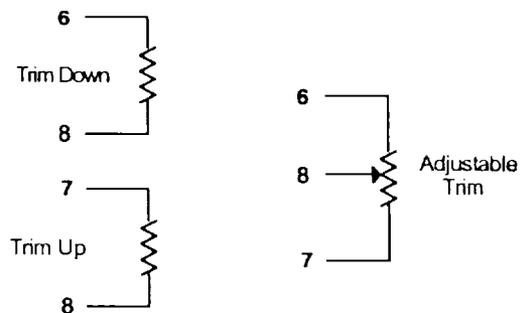
1. +Vin
2. -Vin
3. No pin
4. Control (Enable)
5. Output 2
6. Output 1
7. COM (O/P Common)
8. Output 3

DIMENSIONS



Note: Pins 0.040 in Dia x 0.15 in min

TRIM METHOD



AMPSS® AA10A 10W max
AMR S/D/T Outputs