

AA05N / AA10N

5-10 Watts

AA05N/AA10N Series

Total Power	5-10 Watts
Input Voltages	3.3V, 5V or 12V
# of Outputs	Single



SPECIAL FEATURES

- 3, 5 and 12 VDC input
- Encapsulated surface mounted design
- -40°C to +85°C operation
- Adjustable output voltages
- Enable (on/off)
- Non-isolated
- 200kHz switching frequency
- 0.93" x 0.93" x 0.31" Package

ENVIRONMENTAL

Operating ambient temperature:
-40°C to +85°C (full load, no derating)

Storage temperature: -40°C to +105°C

Humidity: 5% to 95% (non-condensing)

Reflow solderable: 215°C peak 6 sec max

SAFETY

UL UL1950 Pending
 CAN22.2-950 Pending

ELECTRICAL SPECIFICATIONS

Input

Input range 3V: 3.0 - 3.6Vdc
 5V: 4.7 - 5.3 Vdc
 12V: 10-14Vdc

Input capacitance 3: 330μF (typ)
 5V: 100μF (typ)
 12V: 68μF (typ)

Input reverse
voltage protection Fuse recommended with 12V input.
 Fuse Vdrop may be excessive at 3-5V.

Input reflected ripple <100mA(P-P)

Efficiency 2.1V (80 - 84%) typ
 3.3V (82 - 88%) typ
 5.0V (83 - 88%) typ
 12.0V (86 - 88%) typ

Control

Enable on =2.5 to 5.5Vdc or open circuit
 off = 0 to 0.8Vdc
 Ref. to -Vin. TTL compatible

Voltage adjust 2.1V ±200mV
 3.3V ±300mV
 5.0V ±500mV
 12.0V (±1.2V)

Output

Voltage tolerance ±1.5% (100% load)

Line regulation 1% (Vin nom, 100% load)

Load regulation (10% to 100% load) up to 3%

Noise/ripple 2.1V 45mV P-P (see note 1 & 2)
 3.3V 60mV P-P
 5.0V 60mV P-P
 12.0V

Short circuit protection Momentary (0.1 second maximum)

Overvoltage protection N/A

Transient response 100 μsec max
 (25% step load change to within 1%V_o)

Switching frequency 200kHz

Isolation

I/O isolation Not isolated

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6F., CDW Building
382-392 Castle Peak Road
Tsuen Wan, N.T., Hong Kong
Telephone: 852-2437-9662
Facsimile: 852-2402-4426

EUROPE
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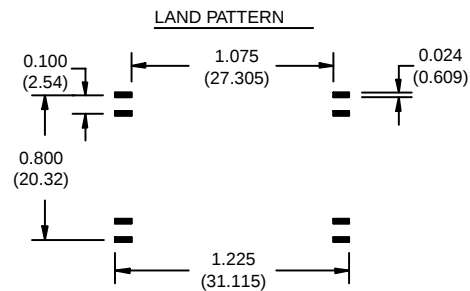
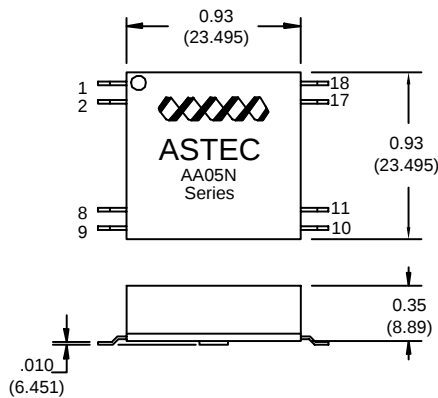
AMERICAS
5810 Van Allen Way
Carlsbad, CA 92008
Telephone: 760-930-4600
Facsimile: 760-930-0698



ORDERING INFORMATION

Input Voltage	Output 1 Voltage	Maximum Power	Model Number
3.00 - 3.6VDC	2.1V @ 2.5A	5.25W	AA05N-003L-021S
3.00 - 3.6VDC	5.0V @ 1A	5W	AA05N-003L-050S
4.5 - 5.5VDC	12.0V @ 0.416A	5W	AA05N-005L-120S
4.5 - 5.5VDC	2.1V @ 2.5A	5.25W	AA05N-005L-021S
4.5 - 5.5VDC	3.3V @ 2.5A	8.25W	AA05N-005L-033S
10.0 - 14.0VDC	3.3V @ 2.0A	6.6W	AA05N-012L-033S
10.0 - 14.0VDC	5.0V @ 2.0A	10W	AA10N-012L-050S

DRAWINGS



Case Material: High temp epoxy
Weight: 2.2oz

PIN ASSIGNMENTS

Single Output

1. Vin
2. Enable
8. Comm
9. Comm
10. Comm
11. Comm
17. Vadj
18. Vout

NOTES:

1. 20 MHz bandwidth. An external 0.1µf ceramic capacitor is recommended to be placed from +V out to -V out.
2. Requires 100µf, 10V tantalum capacitor on output.
3. All specifications are typical at nominal line, full load, and 25° C unless otherwise noted.
4. All specifications subject to change without notice.
5. Mechanical drawings are for reference only.
6. Please refer to the Technical Reference Notes for more information.
7. **Please note that AA05N / AA10N Series products are not internally short circuit protected.**