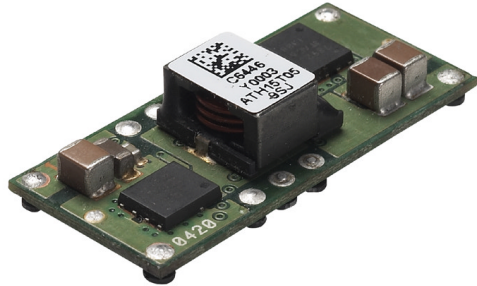


# 15Amps

## ATH15

Total Power: 66W  
 Input Voltages: 3.3V, 5V, 12V  
 No. of Outputs: Single



### Special Features

- Point-of-Load Alliance product
- Open frame TH or SMT termination
- Auto-Track™ Sequencing
- Margin Up/Down Controls
- Remote sense compensation
- Output Voltage Adjust (Resistor Programming)
- Under Voltage Lockout
- Pre-Biased start-up<sup>2</sup>
- Output On/Off Inhibit
- -40°C to +85°C Ambient Air Operation
- Non Isolated module

### Environmental

Ambient air operating temperature range:  
 -40°C to +85°C

Storage temperature: -40°C to +125°C

Demonstrated MTBF: 2.9M Hrs

### Safety

UL, cUL 60950 Recognition

EN 60950 through TUV or VDE (Pending)

### Electrical Specs

#### Input

Input Range 3.0 - 3.6V  
 4.5 - 5.5V  
 10.8 - 13.2V

Under Voltage Lockout with hysteresis

Efficiency up to 95%

#### Output

Overall Regulation 1% of  $V_o$  Typ

Noise/Ripple 30mV Typ (2.5V<sub>o</sub> and below)

1%  $V_o$  Typ ( $V_o > 2.5V$ )

Remote sense Up to 300mV max

Transient Response 100mV typical for 3.3V<sub>o</sub>  
 for 50% to 100%  $I_{O,MAX}$  step change

70us recovery time ( $C_o = 330\mu F$ )

Over Current Protection 175%  $I_{O,MAX}$  typical (autorecovery)

#### Control

Inhibit Control Negative Logic  
 (OPEN = Normal Operation)  
 (GROUND = Function Active)

Output Voltage Adjust See output range on page 2

Output Margin  $\pm 5\% V_{O,NOM}$

Output Auto-Track™ (See Note 5)

Specifications subject to change without notice

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## Ordering Information

Input Voltage	Output Voltage	Output <sup>3</sup> Current	Efficiency <sup>4</sup>	Model Number
3.0V to 3.6V	0.8V to 2.5V	15A	93%	ATH15T033 - 9(S)(J)
4.5V to 5.5V	0.8V to 3.6V	15A	95%	ATH15T05 - 9(S)(J)
10.8V to 13.2V	1.2V to 5.5V	12A	94%	ATH12K12 - 9(S)(J)

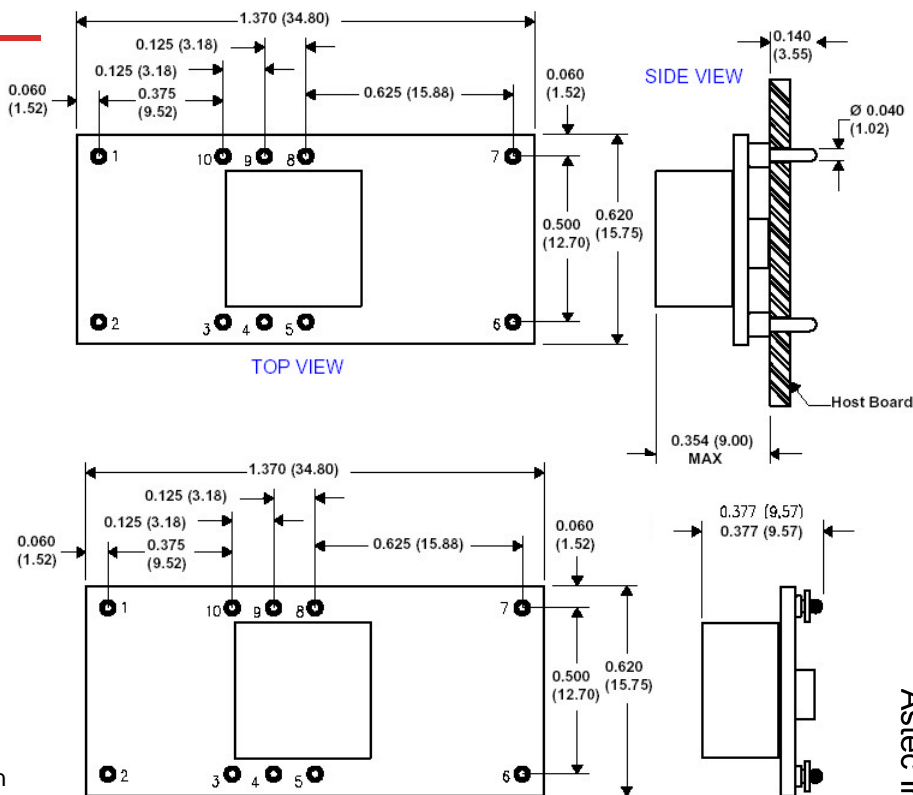
OPTIONS:

- "-9J" - Output Trim, TH termination, Tray Packaging
- "-9SJ" - Output Trim, SMT termination, Tray Packaging
- "-9S" - Output Trim, SMT Termination, T&R packaging

## Pin Assignments

Single Output

	PINS
GND	: 1
Vin	: 2
Inhibit	: 3
Vo Adjust	: 4
Vo Sense	: 5
Vout	: 6
GND	: 7
Track	: 8
Margin Down	: 9
Margin Up	: 10



Through-hole and SMT Outline [in (mm)]

Notes:

1. Nominal values apply with sense pins connected to +Vout and Ground Return with other control pins unconnected.
2. Pre-Bias startup capability exists for 3.3Vin and 5Vin devices.
3. Output derating applies at elevated ambient temperature.
4. Typical efficiency taken at 10A load, 2.5V output (3.3Vin device); 10A load, 3.3V output (5Vin device); 8A load, 5V output (12Vin device).
5. Consult the technical reference notes when available.
6. Mechanical Dimensions are nominal values.
7. Auto-Track™ is a trademark of Texas Instruments.
8. Specification subject to change without notice.

\* Astec reserves the right to make changes to the information contained herein without notice and assumes no liability as a result of its use or application. (REV03: OCTOBER 21, 2004)