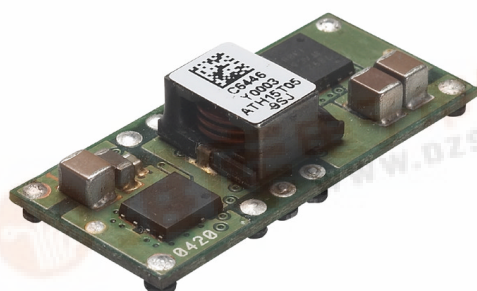


# 15Amps ATH15



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



## 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)

## 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

Specifications subject to change without notice

## Safety

UL, cUL 60950 Recognition

EN 60950 through TUV or VDE (Pending)



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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)  |

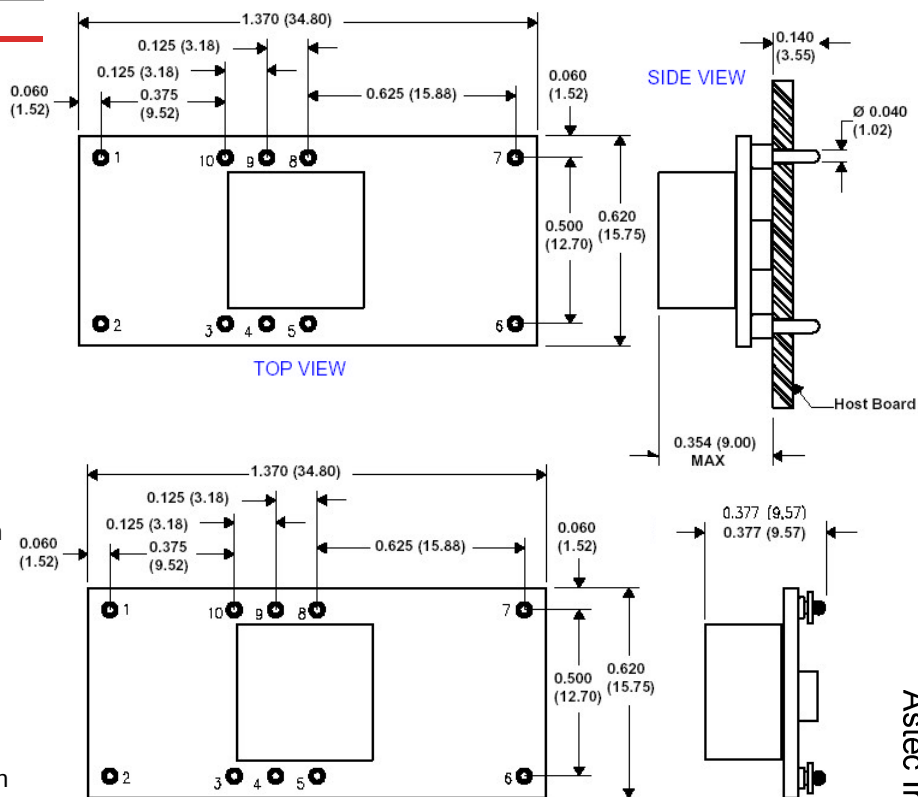
#### OPTIONS:

- "-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 |



#### Notes:

- Nominal values apply with sense pins connected to +Vout and Ground Return with other control pins unconnected.
- Pre-Bias startup capability exists for 3.3Vin and 5Vin devices.
- Output derating applies at elevated ambient temperature.
- 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).
- Consult the technical reference notes when available.
- Mechanical Dimensions are nominal values.
- Auto-Track™ is a trademark of Texas Instruments.
- Specification subject to change without notice.

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

\* 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)