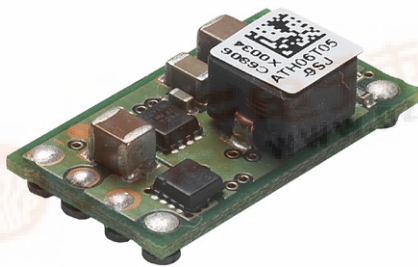


# 6Amps ATH06

Total Power: 33W  
 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 160%  $I_{O,MAX}$  typical (autorecovery)

### Control

Inhibit On/Off 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

## Special Features

- Point-of-Load Alliance product
- Open frame TH or SMT termination
- Auto-Track™ Sequencing
- 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: 3.7M Hrs

## 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	6A	94%	ATH06T033- 9(S)(J)
4.5V to 5.5V	0.8V to 3.6V	6A	95%	ATH06T05 - 9(S)(J)
10.8V to 13.2V	1.2V to 5.5V	6A	93%	ATH06K12 - 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

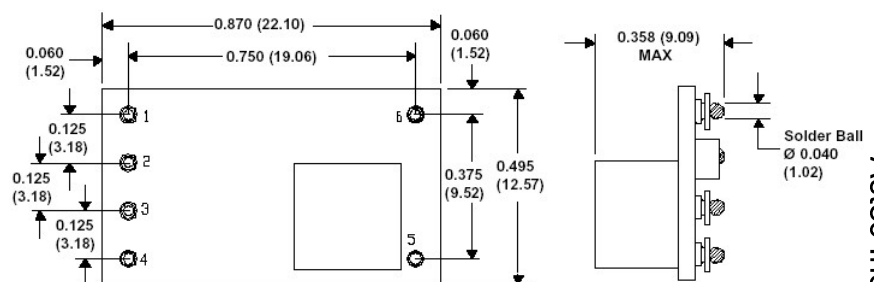
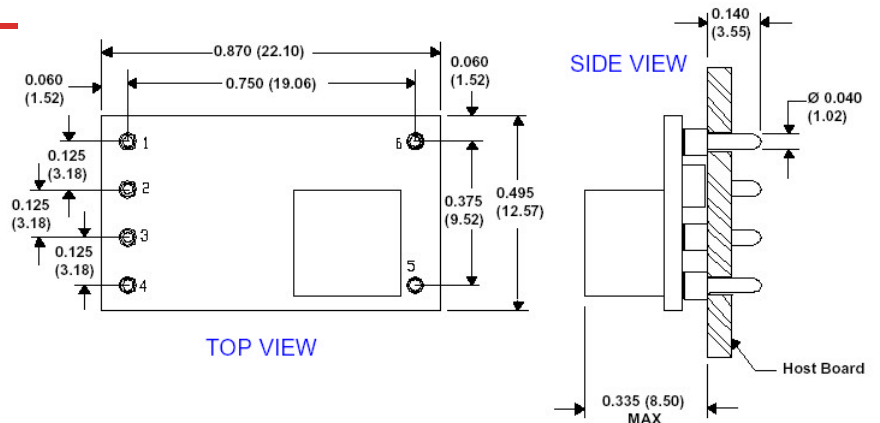
## Pin Assignments

**Single Output**

	PINS
GND	: 1
Track	: 2
Vin	: 3
Inhibit	: 4
Vo Adjust	: 5
Vout	: 6

**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 4A load, 2.5V output (3.3Vin device); 4A load, 3.3V output (5Vin device); 5A 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. (REV02: OCTOBER 21, 2004)

