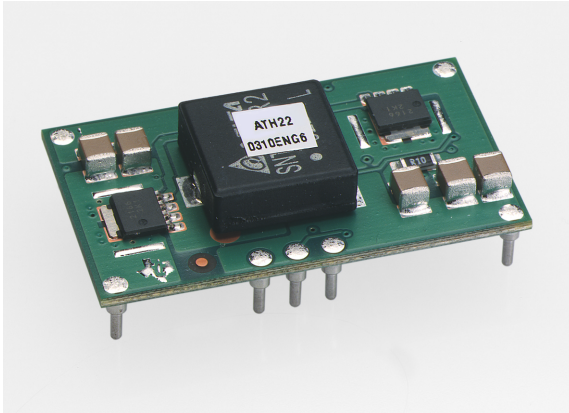


22Amps ATH22

PRELIMINARY

Total Power: 99W
 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-up²
- 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

Calculated MTBF: > 4.9M hours

Safety

UL,cUL 60950 Recognition (Pending)

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 96%

Output

Overall Regulation 1% of V_o Typ

Noise/Ripple 32mV Typ (2.5 V_o and below)

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

Remote sense Up to 300mV max

Transient Response 130mV typical for 3.3 V_o
 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 On/Off Positive Enable Logic

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 ³ Current | Efficiency ⁴ | Model Number |
|----------------|----------------|-----------------------------|-------------------------|-------------------|
| 3.0V to 3.6V | 0.8V to 2.5V | 22A | 95% | ATH22T033-9(S)(J) |
| 4.5V to 5.5V | 0.8V to 3.6V | 22A | 96% | ATH22T05-9(S)(J) |
| 10.8V to 13.2V | 1.2V to 5.5V | 18A | 95% | ATH18K12-9(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

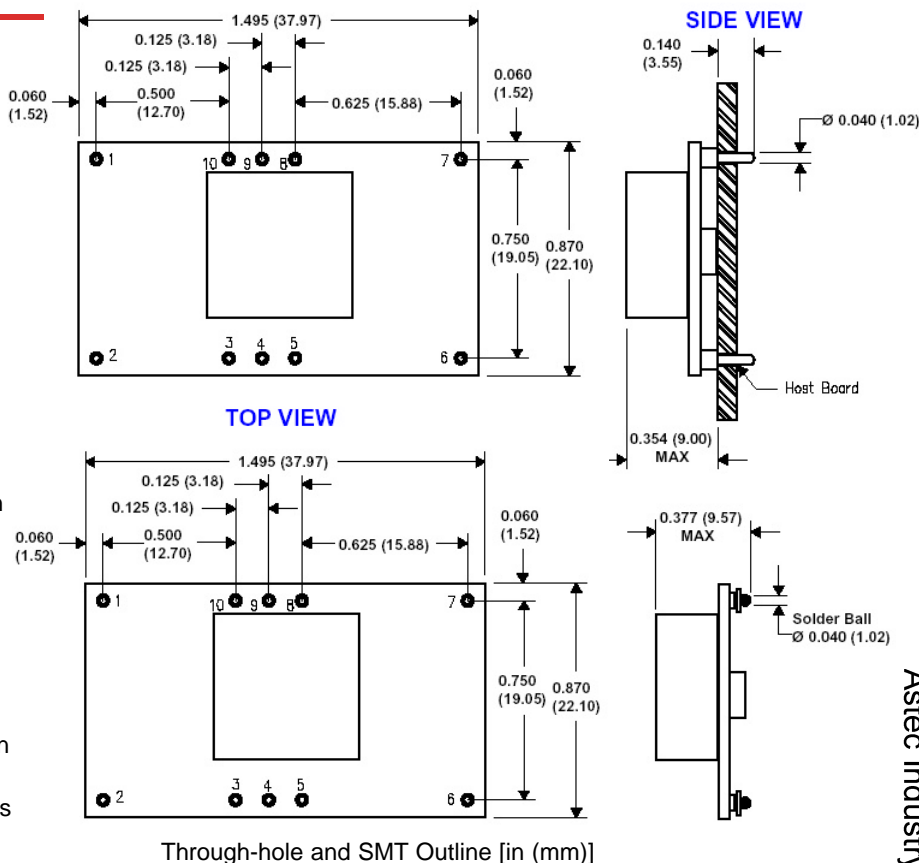
Pin Assignments

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); 10A 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 Industry Standard

* This is a Preliminary Data Sheet. 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. (REV01: JULY 31, 2003)