

22Amps

ATH22

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

Demonstrated MTBF: 2.7M 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 96%

Output

Overall Regulation 1% of Vo Typ

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

1% Vo Typ (Vo > 2.5V)

Remote sense Up to 300mV max

Transient Response 130mV typical for 3.3Vo
 for 50% to 100% I_{O,MAX} step change
 70us recovery time (Co = 330uF)

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 ±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

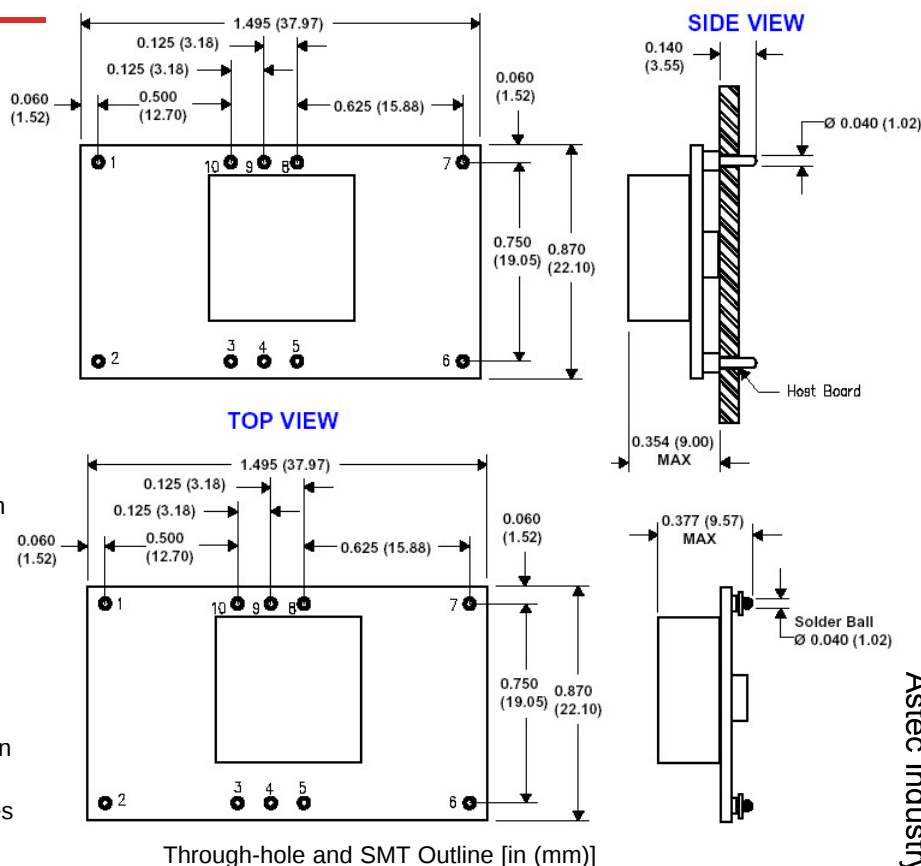
Single Output

	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.

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

Astec Industry Standard