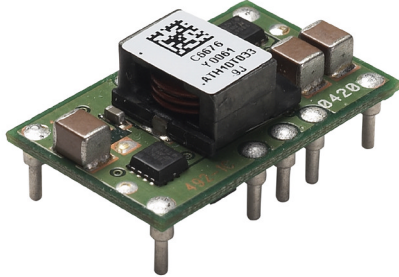


10Amps

ATH10



Total Power: 55W
 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 94%

Output

Overall Regulation 1% of V_o Typ
 Noise/Ripple 30mV Typ (2.5V_o and below)
 1% V_o Typ ($V_o > 2.5V$)
 Remote sense Up to 300mV max
 Transient Response 100mV typical for 3.3V_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 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

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: 3.2M Hrs

Safety

UL, cUL 60950 Recognition

EN 60950 through TUV or VDE (Pending)



Ordering Information

Input Voltage	Output Voltage	Output ³ Current	Efficiency ⁴	Model Number
3.0V to 3.6V	0.8V to 2.5V	10A	93%	ATH10T033- 9(S)(J)
4.5V to 5.5V	0.8V to 3.6V	10A	94%	ATH10T05 - 9(S)(J)
10.8V to 13.2V	1.2V to 5.5V	10A	94%	ATH10K12 - 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

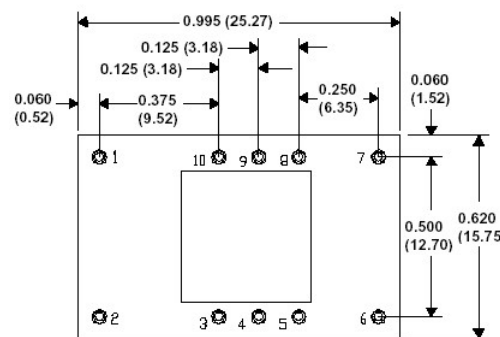
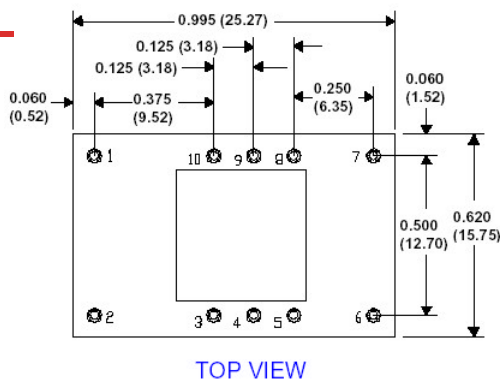
Pin Assignments

Single Output

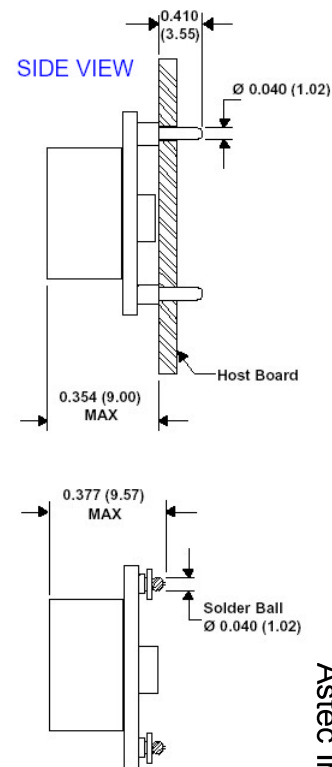
	PINS
GND	: 1
Vin	: 2
Inhibit	: 3
Vo Adjust	: 4
Vo Sense	: 5
Vout	: 6
GND	: 7
Track	: 8
Margin Down	: 9
Margin Up	: 10

Notes:

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 7A load, 2.5V output (3.3Vin device); 7A 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.



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. (REV04: OCTOBER 21, 2004)