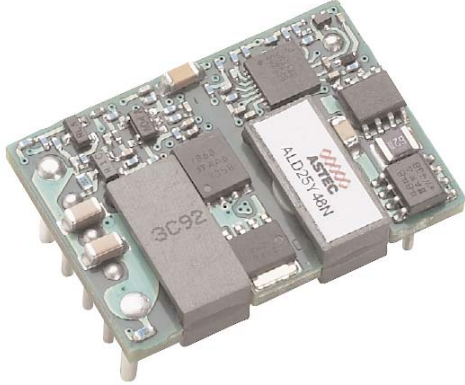


25 Amps

ALD25

Total Power: 60W
 Input Voltages: 48
 No. of Outputs: Single



Special Features

- High Efficiency
- -40°C to +85°C Ambient Air Operation
- 1.30" x 0.9" x 0.35" TH or SMT package
- High capacitive load limit on start-up
- Industry standard feature sets: UVLO, OVP, OCP, OTP, On/Off Enable, Remote Sense, Output Trim
- Basic Insulation
- Regulation to zero load
- Fixed frequency switching
- EU Directive 2002/95/EC compliant for RoHS

Environmental

Ambient air operating temperature range:
-40°C to +85°C

Storage temperature: -40°C to +125°C

Overtemperature protection: 115°C PCB
temperature (Typical)

MTBF: > 1 million hours

Safety

UL,cUL 60950-1

TUV EN60950-1

Electrical Specs

Input

| | |
|-------------|--------------------|
| Input Range | 36 to 75 VDC |
| Input Surge | 100V /100ms |
| Efficiency | 88%@1.8V (Typical) |

Output

| | |
|-----------------------------|--|
| Line Regulation | ±0.1%V _O |
| Load Regulation | ±0.1%V _O |
| Noise/Ripple ¹ | 35mV Typ |
| Remote sense | Up to 10% of V _O |
| Transient Response | 3%V _O (typ) deviation 50% to 75% Load change 80µs settling time (typ) |
| Overvoltage Protection | 125% V _O typ (autorecovery) |
| Over Current protection | 115% I _O typ (autorecovery) |
| Over Temperature Protection | 115°C average PCB temperature (autorecovery) |
| Switching Frequency | Fixed Frequency |
| Isolation Voltage | 1500 Vdc |

Control

| | |
|-----------------------|--|
| Voltage Adjust Enable | 90 to 110% V _O TTL compatible (Positive or Negative enable options) |
|-----------------------|--|



Ordering Information

| Input Voltage | Output Voltage | Output Current | Efficiency ² | Model Number |
|---------------|----------------|----------------|-------------------------|-------------------------|
| 36V to 75V | 5.0V | 12A | 91% Typ | ALD12A48(N) - (6)(S)(L) |
| 36V to 75V | 3.3V | 18A | 90% Typ | ALD18F48(N) - (6)(S)(L) |
| 36V to 75V | 2.5V | 20A | 89% Typ | ALD20G48(N) - (6)(S)(L) |
| 36V to 75V | 1.8V | 25A | 88% Typ | ALD25Y48(N) - (6)(S)(L) |
| 36V to 75V | 1.5V | 25A | 85% Typ | ALD25M48(N) - (6)(S)(L) |
| 36V to 75V | 1.2V | 25A | 83% Typ | ALD25K48(N) - (6)(S)(L) |

NOTES:

Efficiency values taken at nominal input full load condition, 25°C ambient temperature.

OPTIONS

- (N) : "N" = designates Negative Logic Enable (default is Positive Enable with no suffix "N" required)
- (6) : "-6" = 3.7mm nominal pin length (default is 5mm nominal pin length with no suffix "-6" required)
- (S) : "-S" = Surface Mount Termination (default is thru hole termination with no suffix "-S" required)
- (L) : "L" = RoHS compliant (RoHS 6) / "Blank" - RoHS compliant with Lead (PB) in solder exemption (RoHS 5)

Pin Assignments

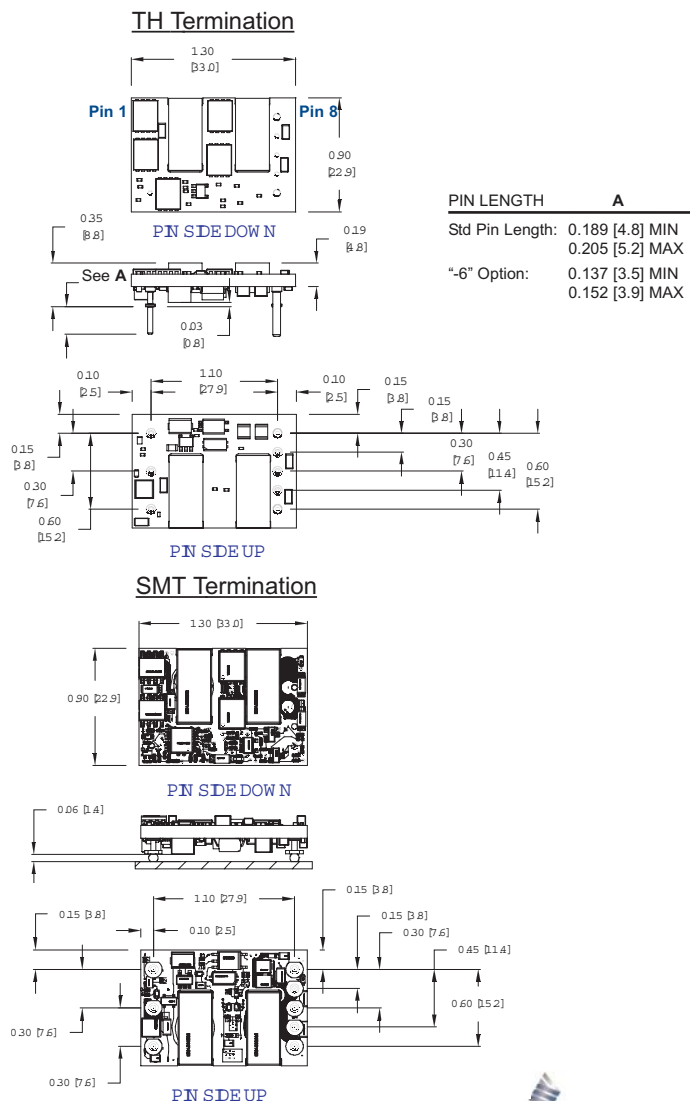
Single Output

1. + Vin
2. Enable
3. - Vin
4. - Vout
5. - Sense
6. Trim
7. + Sense
8. +Vout

Notes:

1. Measured at 20MHz bandwidth with external 10 μF tant. capacitor in parallel with 0.1 μF ceramic capacitor placed across +Vout and -Vout; 33μF e-cap or equivalent placed across +Vin and -Vin.
2. Efficiency measurements taken at full load, nominal line and T_A = 25 °C.
3. All specifications are typical at nominal line, full load and T_A = 25 °C unless otherwise noted.
4. Mechanical drawings are for reference only. Dimensions are in inches [millimeters]. Mechanical tolerance: ± 0.002[0.5], recommended surface mount pads: ∅ = 0.11[2.79] ± 0.005 [0.13]; through hole pin diameter (Pins 4 & 8) ∅ = 0.062 [1.57], others ∅ = 0.04 [1.0] (6X).
5. Technical reference Notes should be consulted for detailed information when available.
6. All specifications subject to change without notice.
7. Warranty 1 yr.

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. (REV08: MARCH 05, 2006)



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