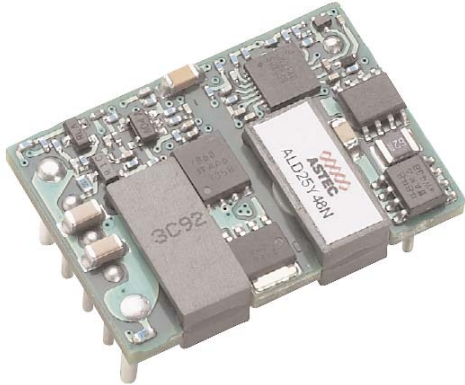


# 25 Amps

## 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  $\pm 0.1\%V_O$   
 Load Regulation  $\pm 0.1\%V_O$   
 Noise/Ripple<sup>1</sup> 35mV Typ  
 Remote sense Up to 10% of  $V_O$   
 Transient Response 3% $V_O$  (typ) deviation  
 50% to 75% Load change  
 80 $\mu$ s 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 90 to 110%  $V_O$   
 Enable TTL compatible  
 (Positive or Negative enable options)

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## ASIA

Units 2111-2116, Level 21  
Tower1, Metroplaza  
223, Hing Fong Road  
Fwai Fong, New Territories  
Hong Kong  
Telephone: 852-2437-9662  
Facsimile: 852-2402-4426



## Ordering Information

ALD25

| Input Voltage | Output Voltage | Output Current | Efficiency <sup>2</sup> | 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

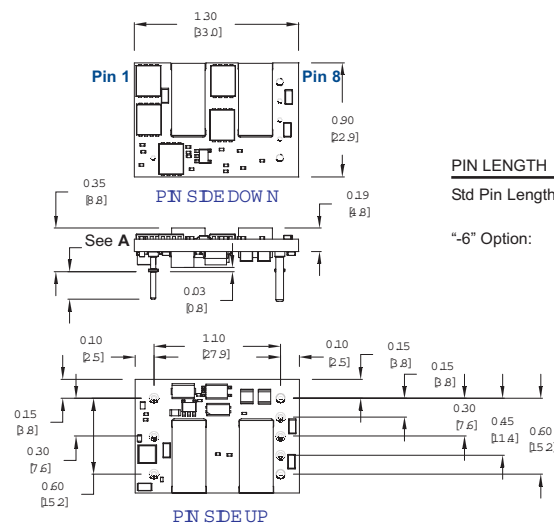
1. + Vin
2. Enable
3. - Vin
4. - Vout
5. - Sense
6. Trim
7. + Sense
8. +Vout

## Notes:

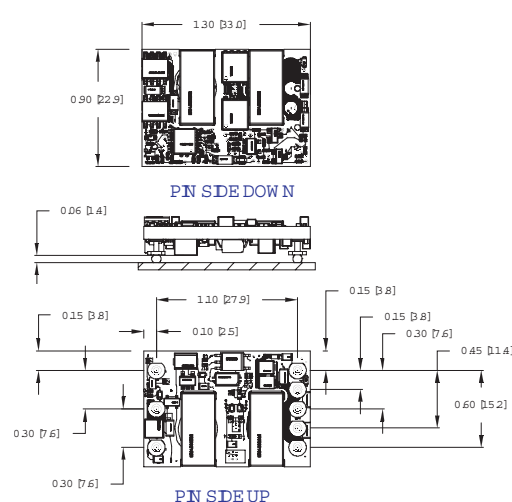
1. Measured at 20MHz bandwidth with external 10  $\mu$ F tant. capacitor in parallel with 0.1  $\mu$ F ceramic capacitor placed across +Vout and -Vout; 33 $\mu$ F e-cap or equivalent placed across +Vin and -Vin.
2. Efficiency measurements taken at full load, nominal line and  $T_A = 25^\circ\text{C}$ .
3. All specifications are typical at nominal line, full load and  $T_A = 25^\circ\text{C}$  unless otherwise noted.
4. Mechanical drawings are for reference only. Dimensions are in inches [millimeters]. Mechanical tolerance:  $\pm 0.002$ [0.5], recommended surface mount pads:  $\varnothing = 0.11$ [2.79]  $\pm 0.005$  [0.13]; through hole pin diameter (Pins 4 & 8)  $\varnothing = 0.062$  [1.57], others  $\varnothing = 0.04$  [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)

## TH Termination



## SMT Termination



Astec Industry Standard

# Mouser Electronics

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[ALD25Y48-S](#)