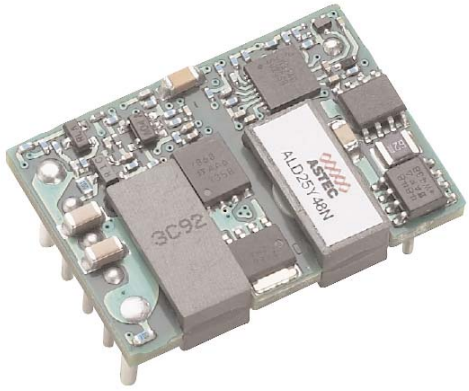
Astec Industry Standard

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 Vo
Transient Response	3%Vo (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	115ºC average PCB temperature (autorecovery)
Switching Frequency	Fixed Frequency
Isolation Voltage	1500 Vdc

Control

Voltage Adjust	90 to 110% Vo
Enable	TTL compatible (Positive or Negative enable options)

North America (USA): 1-888-41-ASTEC Europe (UK): 44 (1384) 842-211Asia (HK): 852-2437-9662

AMERICAS
5810 Van Allen Way
Carlsbad, CA 92008
Telephone: 760-930-4600
Facsimile: 760-930-0698

EUROPE
Astec House, Waterfront Business Park
Merry Hill, Dudley
West Midlands, DY5 1LX, UK
Telephone: 44 (1384) 842-211
Facsimile: 44 (1384) 843-355

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

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, 25ºC ambient temperature.

OPTIONS
(N) : "N" = designates Negatve 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 sufix "-S required)
(L) : "L" = RoHS compliant (RoHS 6) / "Blank" - RoHS compliant with Lead (PB) in solder exemption (RoHS 5)

Pin Assignments

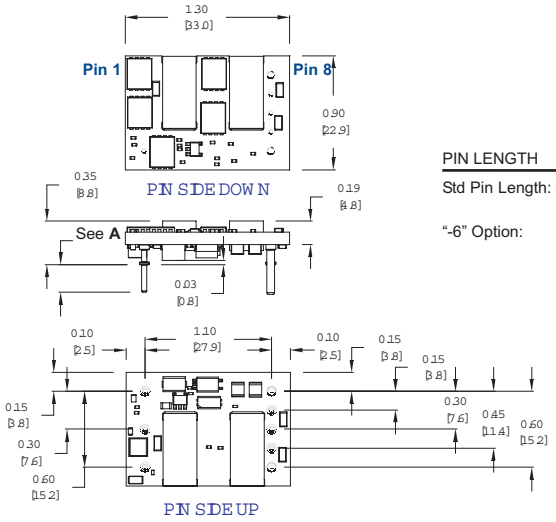
Single Output

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)

TH Termination



PIN LENGTH	A
Std Pin Length:	0.189 [4.8] MIN 0.205 [5.2] MAX
"-6" Option:	0.137 [3.5] MIN 0.152 [3.9] MAX

SMT Termination

