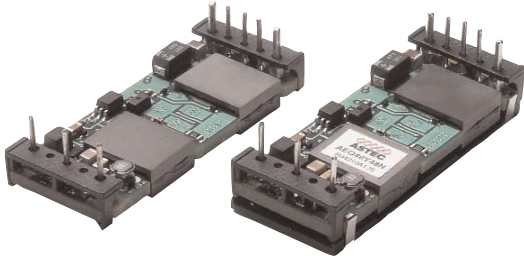


66Watts

AEO/ALO25

High Efficiency



Total Power: 66 Watts
 Input Voltages: 48V
 No. of Outputs: Single

Electrical Specs

Input

| | |
|-------------------------|---|
| Input Range | 36 to 75 VDC |
| Input Surge | 100V /100ms |
| Input UVLO | 33 - 36 V (UVLO ON) 31 - 34 V (UVLO OFF) |
| Efficiency ² | 93% @ 5 V (typical) |

Output

| | |
|-----------------------------|---|
| Line / Load Regulation | < 0.1% V _O (typical) |
| Load Current | Up to 25A for Vo ≤ 1.8V |
| Noise/Ripple ¹ | 20mV _{PK-PK} (typical for Vo ≤ 2.5V) |
| Transient Response | 2% typical deviation (50% to 75% Step Load) < 100μs settling time (typ) |
| Over Voltage Protection | 130% V _O Typ (autorecovery) |
| Over Current Protection | 130% I _{O,max} Typ (autorecovery) |
| Over Temperature Protection | 115°C average PCB temperature (autorecovery) |
| Switching Frequency | Fixed Frequency |
| Isolation Voltage | 1500Vdc |

Control

| | |
|---------------------|--|
| Output Voltage Trim | ±10% V _{O,NOM} |
| Enable | TTL compatible (Positive or Negative Logic) |

Special Features

- 2.3" x 0.9" Industry Standard 8th brick outline
- Baseplate or Openframe construction
- Low Ripple and Noise
- Regulation to zero load
- High Capacitive Load start-up
- Fixed Frequency Switching for EMI predictability
- Industry Standard features: Input UVLO with hysteresis, Enable, OVP, OCP, OTP, Output VoltageTrim, Differential Remote Sense
- Meets Basic Insulation
- EU Directive 2002/95/EC compliant for RoHS

Environmental

Operating Ambient Temperature

Openframe: -40°C to +85°C Ambient
 Baseplate: -40°C to +100°C Case

Storage temperature: -55°C to +125°C

MTBF: > 1 Million Hrs

Safety

UL, cUL 60950-1 Recognized

TUV EN60950-1 Licensed

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 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 | 12.0V | 4A | 93.0% | A(X)O04B48 (N) - (6)(S)(L) |
| 36V to 75V | 5.0V | 12A | 92.0% | A(X)O12A48 (N) - (6)(S)(L) |
| 36V to 75V | 3.3V | 20A | 91.0% | A(X)O20F48 (N) - (6)(S)(L) |
| 36V to 75V | 2.5V | 20A | 90.0% | A(X)O20G48 (N) - (6)(S)(L) |
| 36V to 75V | 1.8V | 25A | 88.5% | A(X)O25Y48 (N) - (6)(S)(L) |
| 36V to 75V | 1.5V | 25A | 86.5% | A(X)O25M48 (N) - (6)(S)(L) |
| 36V to 75V | 1.2V | 25A | 85.5% | A(X)O25K48 (N) - (6)(S)(L) |

OPTIONS:

(X) : "L" = Open Frame / Low Profile

"E" = Baseplate Construction

(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 Through Hole Termination with no suffix "-S" required)⁷

(L) : "L" = RoHS compliant (RoHS 6) / "Blank" - RoHS compliant with Lead (PB) in solder exemption (RoHS 5)

Pin Assignment

Single Output

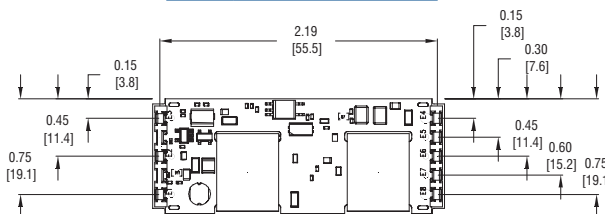
1. +Vin
2. Enable (On/Off)
3. -Vin
4. -V_{OUT}
5. -Sense
6. Trim
7. +Sense
8. +V_{OUT}

Notes:

1. Measured at 20 MHz bandwidth with external 10 μF tant. capacitor in parallel with 0.1 μF ceramic capacitor connected across +V_{out} and -V_{out}; 220 μF e-cap or equivalent connected across +V_{in} and -V_{in}.
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. All specifications subject to change without notice.
5. Mechanical drawings are for reference only. Dimensions are in inches [mm]. Pin placement tolerance ± 0.005 [0.127]. Mechanical Tolerance ± 0.02 [0.5], recommended surface mount pads (min: 0.080 x 0.112 [2.03 x 2.84] / max: 0.092 x 0.124 [2.34 x 3.15]); through hole pin diameter (Pins 4 & 8) ∅ = 0.062 [1.57], others ∅ = 0.04 [1.0] (6X).
6. Technical Reference Notes should be consulted for detailed information when available.
7. AEOxxxxx-Sx series (surface mount terminated with baseplate) are not reflow compatible.
8. Warranty 2 yrs.

Astec reserves the right to make changes to the information contained herein without notice and assumes no liability as a result of its use and application. (REV 02: MARCH 7, 2007).

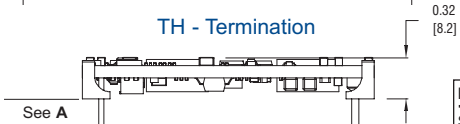
ALO - OPENFRAME



SMT - Termination

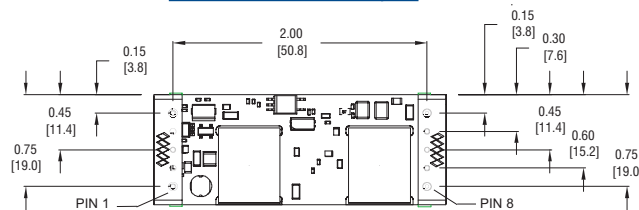


TH - Termination

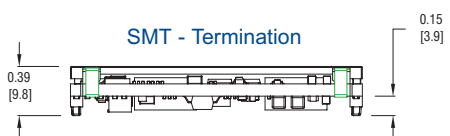


| PIN LENGTH | A |
|-----------------|------------------------------------|
| Std Pin Length: | 0.189 [4.8] MIN 0.205 [5.2] MAX |
| "-6" Option: | 0.137 [3.5] MIN 0.152 [3.9] MAX |

AEO - BASEPLATE



SMT - Termination



TH - Termination

