

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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Rev. 09.30.08_100 AEO/ALO Series

AEO/ALO Series

66/120 Watts

Total Power: Up to 120 Watts

Input Voltage: 48V **# of Outputs:** Single

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



Electrical Specifications

 Input

 Input range:
 36 - 75VDC

 Input surge:
 100V / 100ms

 Input UVLO:
 33-36 V (UVLO ON)

 31-31 V (UVLO OFF)

 Efficiency²:
 93% @ 5V (typical)

Output

Line / Load Regulation: <0.1% v_0 (typical)

Load Current: Up to 25A for $V_0 \le 1.8V$ Noise / Ripple¹: 20m V_{PK-PK} (typical for $V_0 \le 2.5V$)

Transient Personne: 2% typical deviation (50% to 75% S

Transient Response: 2% typical deviation (50% to 75% Step Load) <100us settling time (typ)

Over Voltage Protection: $130\% \text{ V}_{\circ}$ typ (autorecovery) Over Current Protection: $130\% \text{ I}_{\circ,\text{max}}$ 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)

Safety

UL, cUL 60950-1 Recognized **TUV** EN60950-1 Licensed





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Environmental Specifications Operating ambient temperature Openframe: -40 °C to +85 °C Ambien

-40 °C to +85 °C Ambient Baseplate: -40 °C to +100 °C Case -55 °C to +125 °C

Storage temperature: MTBF: >1 Million hours

Ordering Information					
120W Series					
Output Voltage	Output Voltage	Efficiency	Model Number		
12.0 V	10.0 A	93.0%	ALO10B48N-L		
5.0 V	20.0 A	92.0%	ALO20A48N-L		
3.3 V	30.0 A	91.0%	ALO30F48N-L		
2.5 V	35.0 A	89.5%	ALO35G48N-L	Not for New Designs - Please check LES A Series	
1.8 V	40.0 A	88.0%	ALO40Y48N-L		
1.5 V	40.0 A	86.0%	ALO40M48N-L		
1.2 V	40.0 A	85.0%	ALO40K48N-L	Not for New Designs - Please check LES A Series	
66W Series					
Output Voltage	Output Voltage	Efficiency	Model Number	Not for New Designs - Please check LES B Series	
12.0 V	4.0 A	93.0%	ALO4B48N-L	Not for New Designs - Please check LES B Series	
5.0 V	12.0 A	92.0%	ALO12A48N-L	Not for New Designs - Please check LES B Series	
3.3 V	20.0 A	91.0%	ALO20F48N-L	Not for New Designs - Please check LES B Series	
2.5 V	20.0 A	90.0%	ALO20G48N-L	Not for New Designs - Please check LES B Series	
1.8 V	25.0 A	88.5%	ALO25Y48N-L	Not for New Designs - Please check LES B Series	
1.5 V	25.0 A	86.5%	ALO25M48N-L	Not for New Designs - Please check LES B Series	
1.2 V	25.0 A	85.5%	ALO25K48N-L	Not for New Designs - Please check LES B Series	

Options

	Construction	Size	Output Current	Output Voltage	Input Voltage	Remote ON/OFF Logic		PIN Length O/P Termination	RoHS Designation
Α	L	0	10	В	48	N	-	6	L
	L = Low Profile; Openframe E = Baseplate	O = 8th Brick	10 = 10 Amps 20 = 20 Amps 30 = 30 Amps 35 = 35 Amps 40 = 40 Amps	B = 12.0V A = 5.0V F = 3.3V G = 2.5V Y = 1.8V M = 1.5V K = 1.2V	48 = 48V (36-75 V Range)	N = Negative Blank = Positive		Through Hole: 6 = 3.6mm Blank = 5mm S = Surface Mount* *Available for Low Profile; Openframe (ALO) Version only	L = RoHS 6/6 Blank = RoHS 5/6

Mechanical Drawing

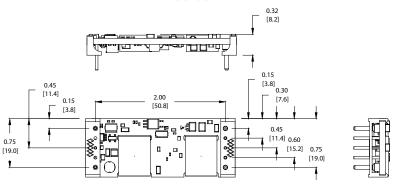
OPEN FRAME THROUGH HOLE

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ALO SERIES THRU HOLE PIN



PIN SIDE DOWN

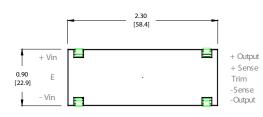


PIN SIDE UP

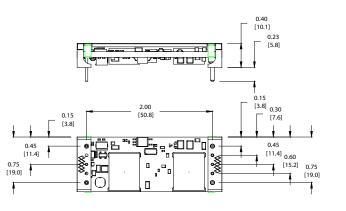
SIDE VIEW

BASEPLATE THROUGH HOLE

AEO SERIES THRU HOLE PIN



PIN SIDE DOWN



PIN SIDE UP



SIDE VIEW

i ili Assigililielits				
Single Output				
1.	+Vin			
2.	Enable (On/off)			
3.	-Vin			
4.	-VOUT			
5.	-Sense			
6.	Trim			
7.	+Sense			
8.	+VOUT			

Notes:

- 1. Measured at 20 MHz bandwidth with external 10 μF tant. capacitor in parallel with 0.1 μF ceramic capacitor connected +Vout and -Vout; 220 μF e-cap or equivalent connected across +Vin and -Vin.
- 2. Efficiency measurements are typical values 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.
- 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: 0092 x 0.124 [2.34 x 3.15]); through hole pin diameter (Pins 4 & 8) ϕ = 0.062 [1.57], others $\phi = 0.04$ [1.0] (6X).
- Technical Reference Notes should be consulted for detailed information when available.
- 8. Warranty 2yrs.

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

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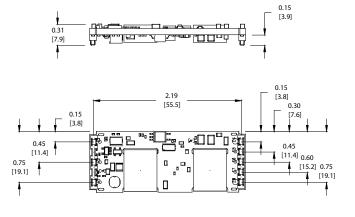
Mechanical Drawing

OPEN FRAME SURFACE MOUNT

ALO OPEN FRAME SMT PIN



PIN SIDE DOWN





PIN SIDE UP SIDE VIEW

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