# imall

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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# ALD15 Series 15 Amps

**Data Sheet** 

Total Power:35 WattsInput Voltage:48 V# of Outputs:Single

## **SPECIAL FEATURES**

- High efficiency
- -40 °C to +75 °C ambient air operation
- 1.30" x 0.90" x 0.35" TH or SMT package
- High capacitive load limit on startup
- 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

#### SAFETY

- UL, cUL: 60950-1
- TUV: EN60950-1



<b>Electrical Specification</b>	s
Input	
Input range	36 to 76 Vdc
Input surge	100 V / 100 ms
Efficiency	90.5% @ 12 V
Output	
Line regulation	±0.1% Vo (typical)
Load regulation	±0.1% Vo (typical)
Noise/ripple <sup>1</sup>	40 mVp-p (typical)
Remote sense	Up to 10% of Vo
Transient response	3% Vo (typical deviation 50% to 75% load change 80 μs setting time (typical)
Overvoltage protection	125% Vo typical (autorecovery)
Overcurrent protection	115% lo typical (autorecovery)
Overtemperature protection	115 °C average PCB temperature (autorecovery)
Switching frequency	Fixed frequency
Isolation voltage	1500 Vdc minimum (2000 Vdc ALD10F48N)
Control	
Voltage adjust	90 - 100% Vo
Enable	TTL compatible

#### Environmental Specifications

Operating ambient temperature range	-40 °C to +85 °C	
Storage temperature	-40 °C to +125 °C	
MTBF	1 million hours	





# **Ordering Information**

Model Number	Input Voltage	Output Voltage	Output Current	Efficiency <sup>2</sup>
ALD03B48(N)-(L)/(6L)/(SL)	36 - 75 V	12 V	2.75 A	90.5%
ALD07A48(N)-(L)/(6L)/(SL)	36 - 75 V	5.0 V	7.00 A	91%
ALD10F48(N)-(L)/(6L)/(SL)	36 - 75 V	3.3 V	10.00 A	90%
ALD11G48(N)-(L)/(6L)/(SL)	36 - 75 V	2.5 V	11.00 A	89%
ALD13Y48(N)-(L)/(6L)/(SL)	36 - 75 V	1.8 V	13.00 A	87%
ALD15M48(N)-(L)/(6L)/(SL)	36 - 75 V	1.5 V	15.00 A	85%
ALD15K48(N)-(L)/(6L)/(SL)	36 - 75 V	1.2 V	15.00 A	84%

Notes:

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

Options:

"N" = Designates Negative Logic Enable (default is Positive Enable with no suffix "N" required)

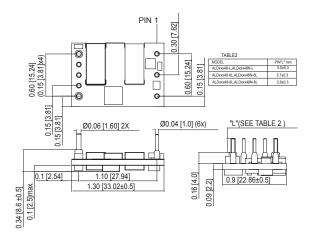
"L" = RoHS compliant

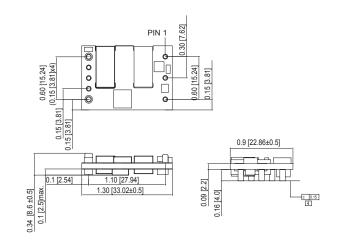
"-6L" = 3.7 mm nominal pin length (default is 5 mm nominal pin length with no suffix "-6" required), RoHS compliant

"-SL" = Surface Mount Termination (default is thru hole termination with no suffix "-S" required) RoHS compliant. STRL designates Taped and Reeled option for SMT.

### **Mechanical Drawings**

#### **Through-hole Termination**





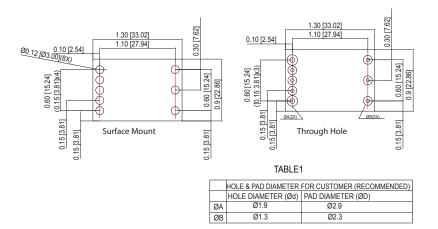
**Surface-mount Termination** 

	Pin Assignments		
	Single Output		
	Pin 1	+Vin	
	Pin 2	Enable	
	Pin 3	-Vin	
	Pin 4	-Vout	
	Pin 5	-Sense	
	Pin 6	Trim	
	Pin 7	+Sense	
A STREET, BALL BALL BALL	Pin 8	+Vout	
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	1		

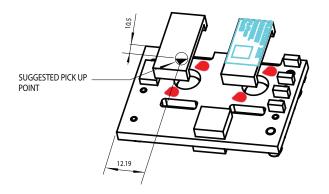


### **Mechanical Drawings**

#### **Recommended PAD/Hole Pattern**



#### **Recommended Pick-up Point**



#### Notes:

- 1. 20 MHz bandwidth. External 10 µF tant.capacitor in parallel with 0.1 uF ceramic capacitor placed across + Vout and -Vout; 33 µF e-cap or equivalent placed across + Vin and -Vin.
- 2. Efficiency measurements taken at full load, nominal line and TA = 25  $^{\circ}$ C
- 3. All specifications are typical at nominal line, full load and TA =  $25 \degree$ C unless otherwise noted.
- 4. Mechanical drawings are for reference only. Dimensions are in inches [mm]. Mechanical tolerance ± 0.020 [± 0.50]
- 5. Technical Reference Notes should be consulted for detailed information when available.
- 6. All specifications subject to change without notice.
- 7. Warranty two (2) years.
- 8. The through-hole terminated modules are intended for wave soldering process.

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