Rev. 04.09.08 ALD15 Series

ALD15 Series

15 Amps

Total Power: 35 Watts **Input Voltage:** 48V **# of Outputs:** Single

Special Features

- High Efficiency
- -40 °C to + 85 °C ambient air operation
- 1.30" x 0.90" 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

Safety

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



Electrical Specifications

Input

Input range: 36 to 75 Vdc
Input surge: 100 V / 100 ms
Efficiency: 87% @ 1.8 V (typical)

Output

 $\begin{array}{lll} \text{Line regulation:} & \pm 0.1\% \, \text{V}_{\text{O}} \\ \text{Load regulation:} & \pm 0.1\% \, \text{V}_{\text{O}} \\ \text{Noise/ripple}^{\text{1}}: & 35 \, \text{mV typical} \\ \text{Remote sense:} & \text{Up to } 10\% \, \text{of Vo} \\ \end{array}$

Transient response: 3% V_O (typical) deviation

50% to 75% load change $80~\mu s$ setting time (typical) $125\%~V_O$ typical (autorecovery)

Overcurrent protection: 115% I_o typical (autorecovery)
Overtemperature protection: 115 °C average PCB temperature (autorecovery)

Switching frequency: Fixed frequency Isolation voltage: 1500 Vdc

Contro

Overvoltage protection:

Voltage adjust: 90 to 110% Vo Enable: TTL compatible

Environmental Specifications

Ambient air operating temperature range: $-40 \,^{\circ}\text{C}$ to $+85 \,^{\circ}\text{C}$ Storage temperature: $-40 \,^{\circ}\text{C}$ to $+125 \,^{\circ}\text{C}$

Overtemperature protection: 115 °C PCB temperature (typical)

MTBF: 1 million hours



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| Ordering Information | | | | | |
|----------------------|----------------|----------------|-------------------------|-----------------------|--|
| Input Voltage | Output Voltage | Output Current | Efficiency ² | Model Number | |
| 36 - 75 V | 12.0 V | 2.75 A | 92% | ALD03B48(N)-(6L)/(SL) | |
| 36 - 75 V | 5.0 V | 7.00 A | 91% | ALD07A48(N)-(6L)/(SL) | |
| 36 - 75 V | 3.3 V | 10.00 A | 90% | ALD10F48(N)-(6L)/(SL) | |
| 36 - 75 V | 2.5 V | 11.00 A | 89% | ALD11G48(N)-(6L)/(SL) | |
| 36 - 75 V | 1.8 V | 13.00 A | 87% | ALD13Y48(N)-(6L)/(SL) | |
| 36 - 75 V | 1.5 V | 15.00 A | 85% | ALD15M48(N)-(6L)/(SL) | |
| 36 - 75 V | 1.2 V | 15.00 A | 84% | ALD15K48(N)-(6L)/(SL) | |
| Makee | | | | | |

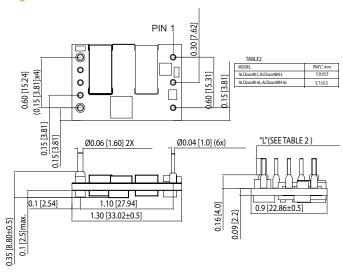
Notes:

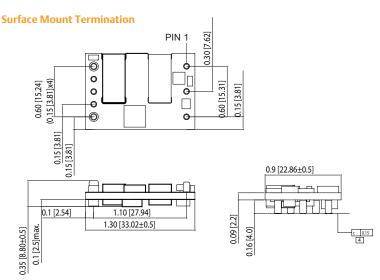
Efficiency values taken at nominal imput full load condition, 25 °C ambient temperature.

Options

- "N"= Designates Negative Logic Enable (default is Positive Enable with no suffix "N" required)
- "-6L" = 3.7 mm nominal pin length (default is 5 mm nominal pin length with no suffix "-6" required),
- "-SL" = Surface Mount Termination (default is thru hole termination with no suffix "-S" required) RoHS compliant

Through-hole Termination





Pin Assignments

Single Output

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

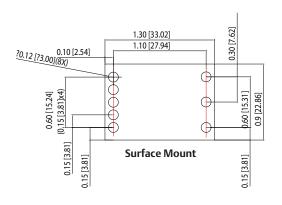
Notes:

- 1. 20 mHz bandwidth. External 10 μF tant. capacitor in parallel with 1uF ceramic capacitor placed across + Vout and -Vout; 33 μF e-cap or equivalent placed across +Vin and -Vin.
- Efficiency measurements taken at full load, nominal line and T_A = 25 °C
- 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 [mm]. Mechanical tolerance \pm 0.020 [\pm 0.50]
- 5. Technical Reference Notes should be consulted for detailed information when available.
- 6. All specifications subject to change without notice.
- The through-hole terminated modules are intended for wave soldering process.

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Mechanical Drawings

Recommended PAD/ Hole Pattern



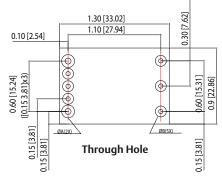
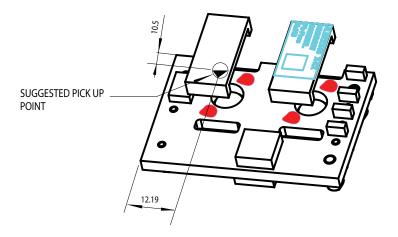


TABLE1

| | HOLE &PAD DIAMETER FOR CUSTOMER(RECOMMENDED) | | | | |
|----|--|-------------------|--|--|--|
| | HOLE DIAMETER (Ød) | PAD DIAMETER (ØD) | | | |
| ØA | Ø1.9 | Ø2.9 | | | |
| ØB | Ø1.3 | Ø2.3 | | | |

Recommended Pick-up Point



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U 3/A

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