

ALD15 Series

15 Amps

Data Sheet

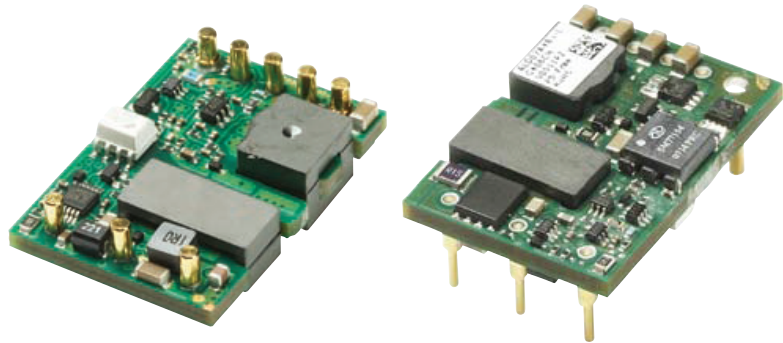
Total Power: 35 Watts
Input Voltage: 48 V
of Outputs: Single

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 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
- TUV: EN60950-1



Electrical Specifications

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 ¹	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% Io 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 ²
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 input full load condition, 25 °C ambient temperature.

Options:

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

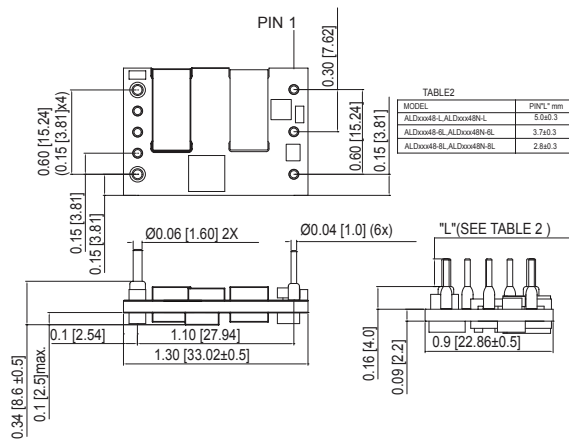
"L" = RoHS compliant

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

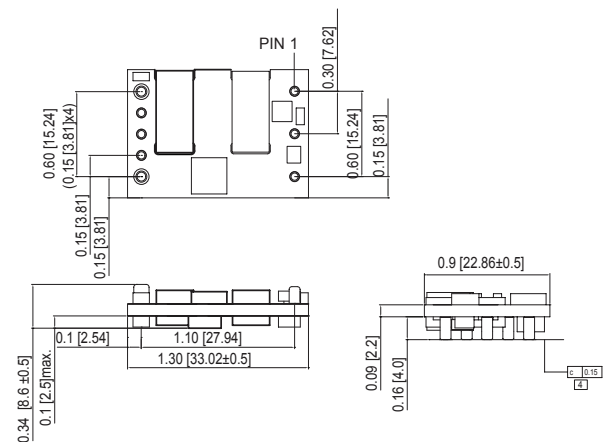
"-SL" = Surface Mount Termination (default is thru hole termination with no suffix "-S" required) RoHS compliant. STRL designates Taped and Reeled option for SMT.

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
Pin 8	+Vout

Mechanical Drawings

Recommended PAD/Hole Pattern

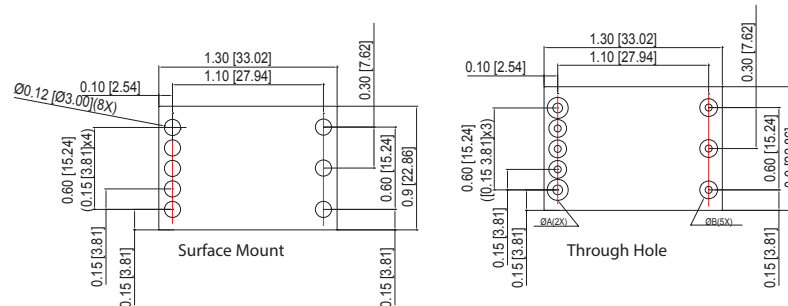
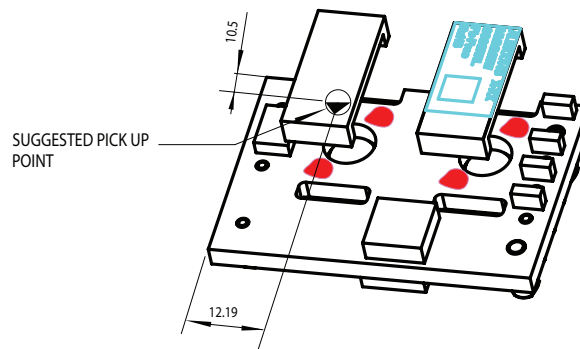


TABLE1

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



Notes:

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

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