



# ALD SERIES

## 57 WATT

### BUCK LED DRIVER with DALI



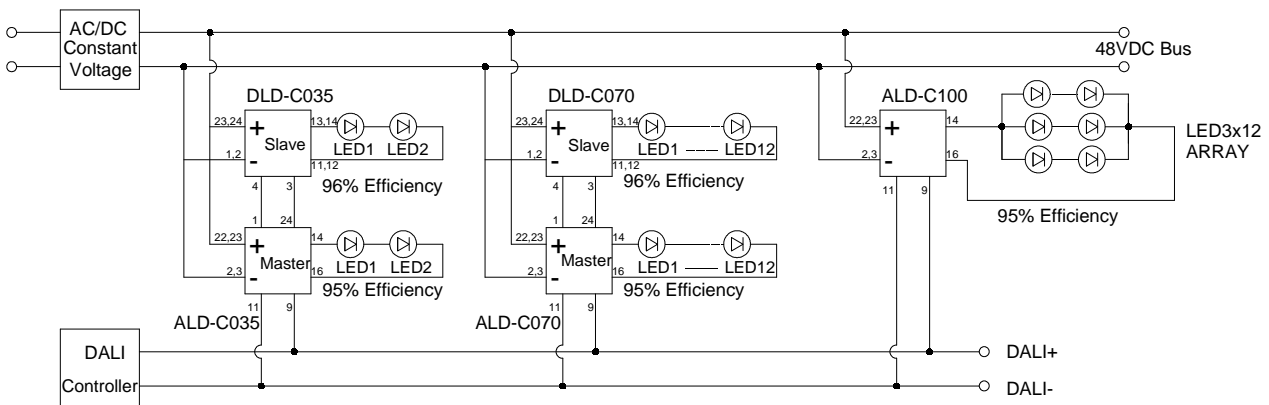
### Features

- \* LED Driver Current up to 1400mA
- \* Constant Current Output
- \* Digital Address Lighting Interface (DALI)
- \* High Efficiency up to 95%
- \* Continuous Short Circuit Protection
- \* DIP24 package
- \* High Reliability
- \* IP67 Protection



MODEL	Input Voltage Range	Output Operating Voltage	Output Rated Current	Output Rated Power	Ripple and Noise (max.) Note2	Efficiency (TYPICAL) Note3
ALD-C035	4.5-60Vdc	2-57VDC	350mA	20W	300mVpp	95%
ALD-C070	4.5-60Vdc	2-57VDC	700mA	40W	500mVpp	95%
ALD-C100	4.5-60Vdc	2-57VDC	1000mA	57W	500mVpp	95%
ALD-C140	10-36Vdc	8-33VDC	1400mA	46.2W	500mVpp	95%

- Note:
1.  $3V < V_{in} - V_{out} < 30V_{dc}$ , to keep current accuracy. Nominal Input Voltage: 48Vdc, 28Vdc (C140 models)
  2. Ripple and Noise are measured at rated current, Nominal Input and 36Vdc or 24Vdc (C140 models) output and 20MHz bandwidth with a 0.1uF ceramic capacitor.
  3. Measured at rated current, Nominal Input and 36Vdc or 24Vdc (C140 models) output.
  4. Acceptable customer modifications.



## Specifications

All specifications are Typical at nominal line, full load and 25°C unless otherwise noted

### INPUT SPECIFICATIONS:

Input Voltage ..... 1400mA/other ..... 10-36VDC/4.5-60Vdc  
 Input Surge Voltage (1second) ..... 1400mA/other .... 50Vdc/65Vdc max.  
 Input Filter ..... Capacitor  
 Under Voltage Lockout ..... Power up ..... 8.0Vdc/4.0Vdc typ.  
 Power down ..... 6.9Vdc/3.7Vdc typ.

### OUTPUT SPECIFICATIONS:

Constant Current Accuracy ..... (note1) ..... ±5% max.  
 Current Line Regulation ..... (note 2) ..... ±5% max.  
 Current Load Regulation ..... (note 3) ..... ±5% max.  
 Short Circuit Protection ..... Constant Current with Auto Recovery  
 Start up time ..... 60ms max.

### GENERAL SPECIFICATIONS:

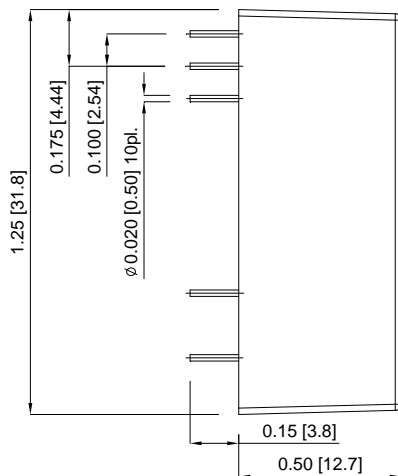
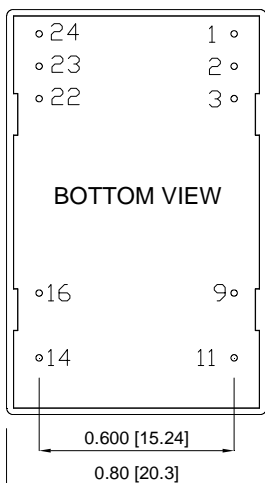
Efficiency ..... See Table  
 Temperature Coefficient ..... ±0.05%/°C (0~50°C)  
 Isolation Voltage ..... Non-isolation  
 Switching Frequency ... 1400mA/Others ..... 50-500KHz/ 300KHz typ.  
 Operating Ambient Temperature ..... -40 ~ 85°C see Derating Curve  
 Case Temperature ..... 100°C max.  
 Cooling ..... Natural Convection  
 Storage Temperature ..... -55 ~ 125°C  
 Operating Humidity ..... 10%~95%RH non-condensing  
 Operating Altitude ..... Sea Level to 3000m  
 Vibration ..... 0~500Hz, 2G 60min./1cycle, period for 3hours, 3 axes  
 Shock ..... 30g peak, half sine, 6 axes  
 MTBF, MIL-HDBK-217F (25°C) ..... >1.6Mhrs  
 Dimensions ..... 1.25x0.80x0.50 Inches(31.8x20.3x12.7 mm)  
 Weight ..... 18g  
 Case Material ..... Plastic Case

### Mechanical Specification

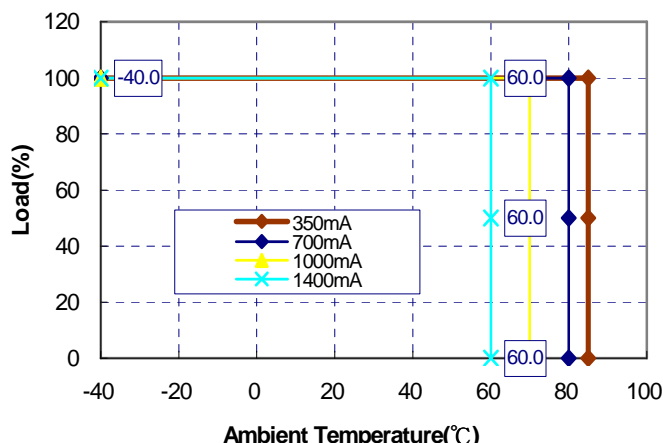
All Dimensions in Inches[mm]

Tolerance Inches:x.xx=±0.02 ,x.xxx=±0.010

Millimeters: x.x=±0.5 , x.xx=±0.25



## ALD Derating Curve



### DALI Control:

Output Current Range ..... 10%-100%

### SAFETY AND EMISSIONS:

EMI ..... EN55022/EN55015 Class B

EMS ..... EN61547,EN61000-4-2,3,4,5,6

### NOTE:

- 3V<Vin-Vout <30Vdc, to keep current accuracy.
- Current Line regulation is measured from High Line to Low Line.
- Current Load regulation is measured from high to low operating voltage.
- Acceptable customer modifications.

PIN CONNECTION	
Pin	Function
1	PWM/ON/OFF
2,3	-Vin
9	DALI -
11	DALI +
14	+V Output
16	-V Output
22,23	+Vin
24	Analogue DIMming