



# DLD SERIES

## 57 WATT

### BUCK LED DRIVER



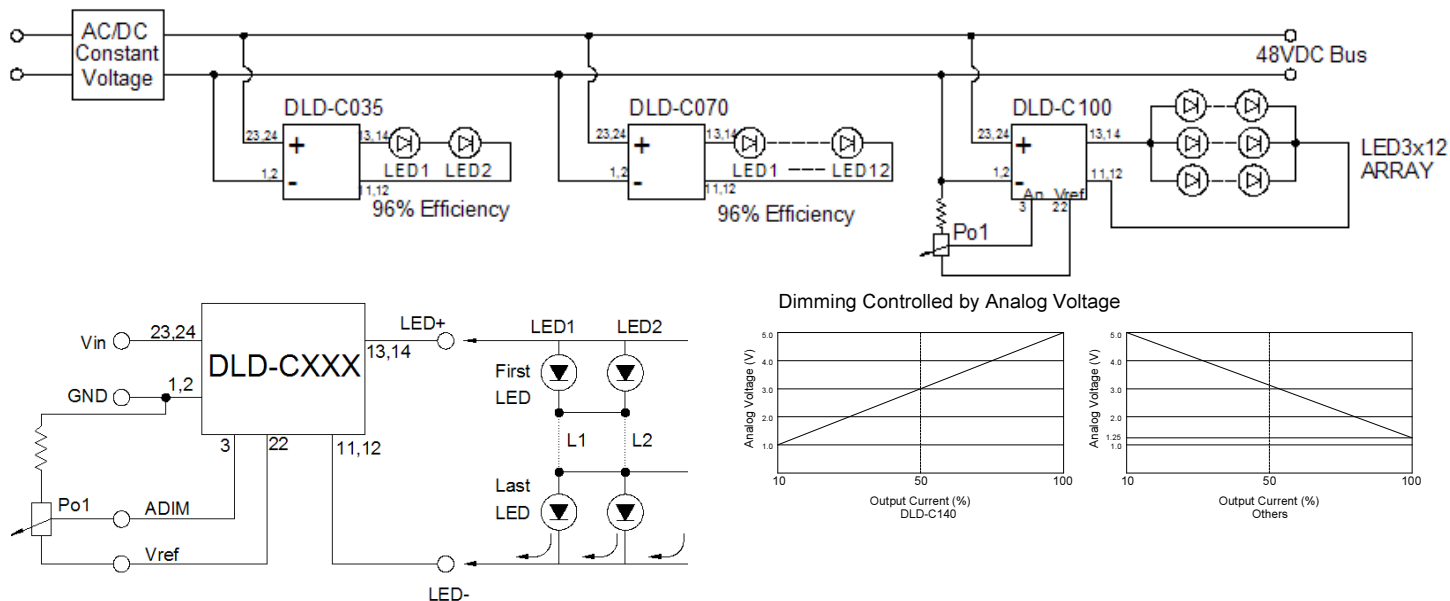
### Features

- \* LED Driver Current up to 1400mA
- \* Constant Current Output
- \* Digital PWM Dimming
- \* Analog Dimming Control
- \* High Efficiency up to 96%
- \* Continuous Short Circuit Protection
- \* DIP16 Package and Wired Version
- \* High Reliability
- \* IP67 Protection



MODEL	INPUT VOLTAGE RANGE	OUTPUT OPERATING VOLTAGE	OUTPUT RATED CURRENT	OUTPUT RATED POWER	RIPPLE & NOISE (Max.) NOTE2	%EFF. (Typ.) NOTE3
DLD-C035	4.5-60 VDC	2-57 VDC	350 mA	20 W	300 mVpp	96%
DLD-C070	4.5-60 VDC	2-57 VDC	700 mA	40 W	500 mVpp	96%
DLD-C100	4.5-60 VDC	2-57 VDC	1000 mA	57 W	500 mVpp	96%
DLD-C140	10-36 VDC	8-33 VDC	1400 mA	46.2 W	500 mVpp	96%

- 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/others ..... 10-36VDC/4.5-60Vdc  
 Input Surge Voltage (1second) ... 1400mA/others ... 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:

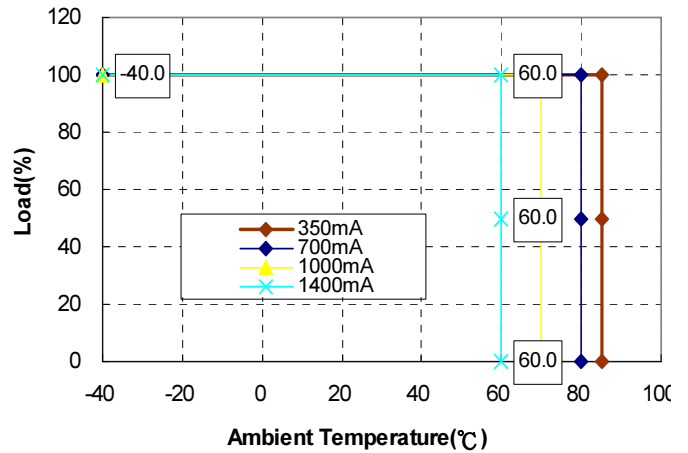
Constant Current Accuracy .... (note1) ..... ±5% max.  
 Current Line Regulation ..... (note2) ..... ±5% max.  
 Current Load Regulation ..... (note3) ..... ±5% max.  
 Short Circuit Protection ..... Constant Current with Auto Recovery  
 Start up time ..... 60ms max.

### GENERAL SPECIFICATIONS:

Efficiency ..... See Table  
 Temperature Coefficient ..... ±0.05%/°C

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, L-HDBK-217F (25°C) ..... >1.6hrs  
 Dimensions ..... 1.28x0.66x0.40 Inches(32.5x16.8x10.2 mm)  
 Weight ..... 18g.  
 Case Material ..... Plastic Case

## DLD Derating Curve



### PWM DIMMING: (leave open if not used)

Input Voltage Range ..... TTL Logic Compatibility 5Vdc typ.  
 Threshold Voltage ..... Module on >1.75Vdc, Module off <0.5Vdc  
 Switching Frequency ..... 1KHz max.  
 Output Current Range ..... 10% to 100%  
 Minimum On Time ..... 100ns

### ANALOGUE DIMMING: (leave open if not used)

Control Voltage Range ..... 1.25-5Vdc/1-5Vdc (DLD-C140)  
 Analogue Pin Drive Current ..... 0.4mA max.

### SAFETY AND EMISSIONS:

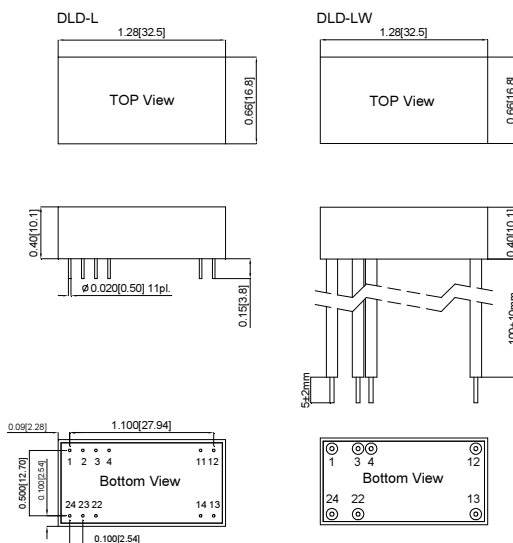
EMI ..... EN55022/EN55015 Class B  
 EMS ..... EN61547, EN61000-4-2,3,4,5,6

### 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.

## Mechanical Specification

NOTE: Pin Size is 0.020" (0.5mm) DIA ±0.05  
 All Dimensions in Inches (mm)  
 Tolerance: Inches: x.xx=±0.02, x.xxx=±0.010  
 Millimeters: x.x=±0.5, x.xx=±0.25



DLD Connections		
DLD-CXXX	DLD-CXXXLW	Function
1&2	1 (Black)	-V Input
3	3 (White)	Analogue Dimming
4	4 (Green)	PWM/ON/OFF
11&12	12 (Blue)	-V Output
13&14	13 (Yellow)	+V Output
22	22 (Brown)	Vref/NP
23&24	24 (Red)	+V Input

NP: No Pin for DLD-C140