



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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**■ Features :**

- DC/DC step-down converter
- Constant current output: 350mA to 1400mA
- Wide input voltage: 6 ~ 50VDC  
Wide output LED string voltage: 3 ~ 45VDC
- High efficiency up to 95%
- Built-in EMI filter, comply with EN55015 without additional input filter and capacitors
- DALI dimming function input under voltage lockout
- Built-in PWM and remote ON/OFF control(pin style only, wire style optional)
- Protections: Short circuit
- Cooling by free air convection
- Fully encapsulated with IP65 level
- Compact size
- Suitable for driving illumination LED
- 3 years warranty



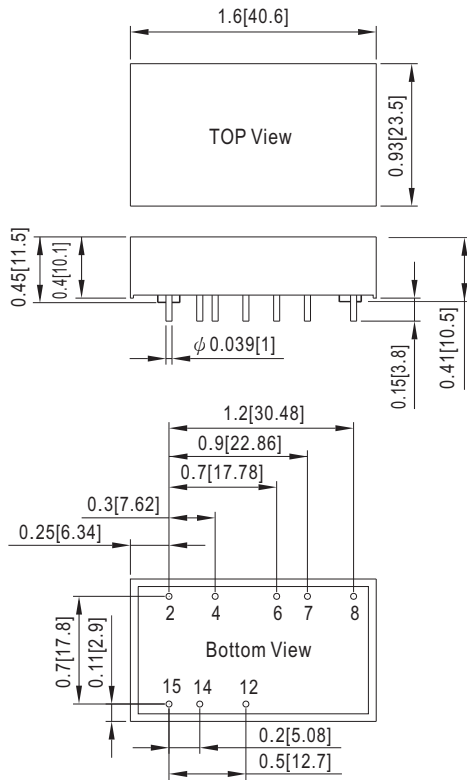
LDD-350H-**W** DA    Blank : pin style  
                           **W**        : wire style

**SPECIFICATION**

ORDER NO.	LDD-350H-□ DA	LDD-700H-□ DA	LDD-1050H-□ DA	LDD-1400H-□ DA		
OUTPUT	CURRENT RANGE	350mA	700mA	1050mA		
	VOLTAGE RANGE    Note.4	3 ~ 45VDC				
	CURRENT ACCURACY (Typ.)	±5% at 48VDC input				
	RIPPLE & NOISE(max.) Note.2	300mVp-p	500mVp-p	500mVp-p	500mVp-p	
	SWITCHING FREQUENCY (Typ.)	500KHz				
EXTERNAL CAPACITANCE LOAD (max.)	1400uF					
INPUT	VOLTAGE RANGE	6 ~ 50VDC			6 ~ 40VDC	
	EFFICIENCY (max.)	95% at full load and 48VDC input				
	DC CURRENT	Full load    Note.3	275mA	550mA	825mA	1280mA
		No load	5mA			
FILTER	Capacitor					
PWM DIMMING & ON/OFF CONTROL (PIN STYLE ONLY)	REMOTE ON/OFF	Leave open if not use				
		Power ON with dimming: DIM ~ -Vin >1.2 ~ 5VDC or open circuit, max. operation voltage 5.5VDC				
	Power OFF : DIM ~ -Vin < 0.1VDC or short					
PWM FREQUENCY	200 ~ 1KHz					
QUIESCENT INPUT CURRENT IN SHUTDOWN MODE(max.)	1mA at PWM dimming OFF and 24VDC input					
ANALOG DIMMING & ON/OFF CONTROL (PIN STYLE ONLY)	REMOTE ON/OFF	Leave open if not use				
		Power ON with dimming: Analog DIM ~ -Vin >0.1 ~ 2.5VDC or open circuit, max. operation voltage 5.5VDC				
	Power OFF : Analog DIM ~ -Vin <0.1VDC or short					
PROTECTION	SHORT CIRCUIT	Regulated at rated output current				
	Protection type: Can be continued, recovers automatically after fault condition is removed					
	INPUT VOLTAGE LOCKOUT	Start up	4.2VDC			
Shut-down		3.8VDC				
ENVIRONMENT	WORKING TEMP.	-40 ~ + 85°C (Refer to derating curve)				
	WORKING HUMIDITY	20% ~ 90% RH non-condensing				
	STORAGE TEMP., HUMIDITY	-55 ~ +125°C, 10 ~ 95% RH non-condensing				
	TEMP. COEFFICIENT	±0.03% / °C				
	VIBRATION	10 ~ 500Hz, 2G 10min./1 cycle, period for 60min. each along X, Y, Z axes				
OPERATING CASE TEMP. (max.)	100°C					
EMC	SAFETY STANDARDS	EAC TP TC 004 approved				
	EMC EMISSION	Compliance to EN55015, EAC TP TC 020				
	EMC IMMUNITY	Compliance to EN61547, EN61000-4-2,3,4,6,8, light industry level, criteria A, EAC TP TC 020				
OTHERS	MTBF	1000Khrs min. MIL-HDBK-217F (25°C)				
	DIMENSION	40.6*23.5*10.1mm or 1.6**0.93**0.40" inch (L*W*H)				
	WEIGHT	LDD-H-DA:18g ; LDD-H-WDA:23g				
	POTTING MATERIAL	Epoxy(UL94-V0)				
NOTE	1.All parameters are specified at normal input(48VDC), rated load, 25°C 70% RH ambient. 2.Ripple & noise are measured at 20MHz by using a 12" twisted pair terminated with a 0.1uf capacitor. 3.Test condition: 48VDC input for 350~1050mA, 28VDC input for 1400mA. 4.Output voltage will always step down by 3 volts from input DC voltage. 5.The output of LDD-H should not be connected to the input of the same unit or output from other sources.					

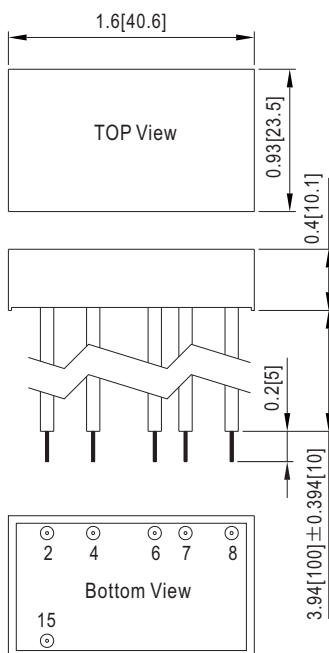
### Mechanical Specification

#### Pin style(LDD- 350H~1400H – DA):



NOTE: Pin tolerance  $\pm 0.05\text{mm}$

#### Wire style(LDD – 350H~1400H-WDA):



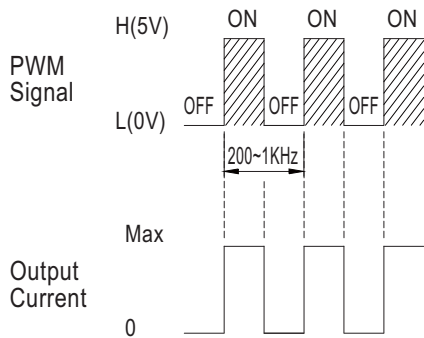
NOTE: Wire range is 16~24AWG

### Pin Configuration

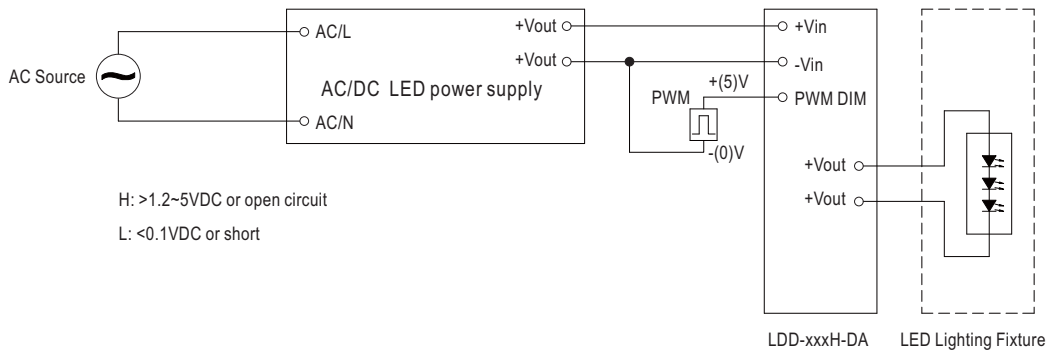
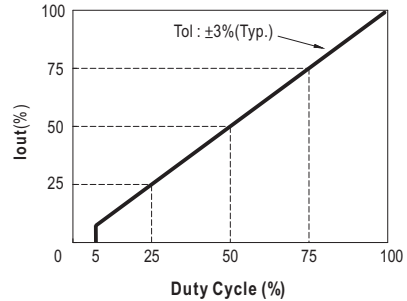
Pin No.		Comment
2	+Vin	DC supply
4	+Vout	LED+ connection
6	-Vout	LED- connection
7	DA	Connect to DALI Controller
8	DA	
12	Analogue DIM	Analogue Dimming
14	PWM DIM	PWM Dimming
15	-Vin	DC supply, Don't connect to -Vout

Pin No.		Comment
2	+Vin (Red)	DC supply
4	+Vout (Yellow)	LED+ connection
6	-Vout (Blue)	LED- connection
7	DA (Brown)	Connect to DALI Controller
8	DA (Brown)	
15	-Vin (Black)	DC supply, Don't connect to -Vout

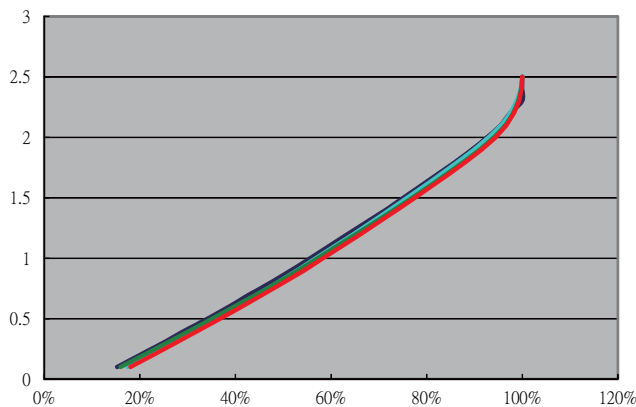
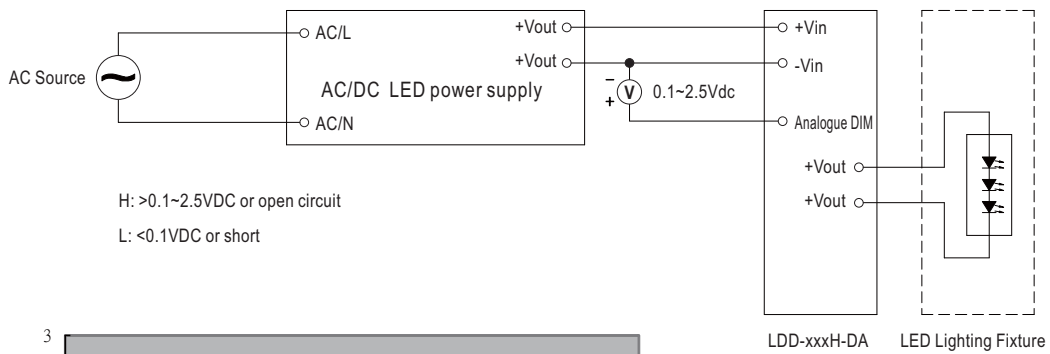
### ■ PWM Dimming Control & Diagram(pin style only, wire style optional)



⊙ During PWM dimming operation, the output current will change to PWM style.



### ■ Analogue Dimming Control & Diagram(pin style only, wire style optional)



## ■ Efficiency VS Output Voltage(Number of LEDs)

Fig-1 12VDC input, 1~3 LEDs(Vf=3V)

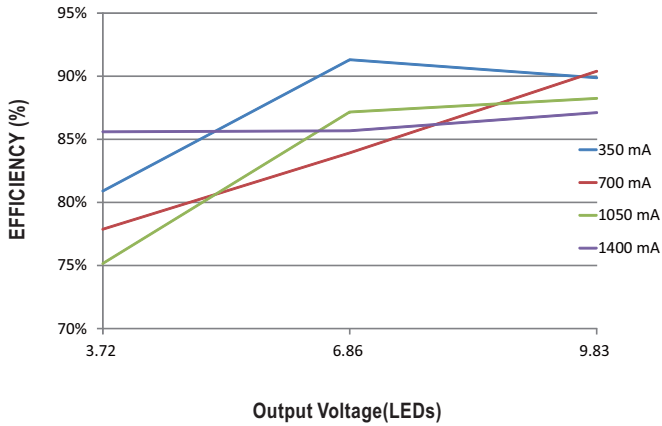


Fig-2 24VDC input, 1~7 LEDs(Vf=3V)

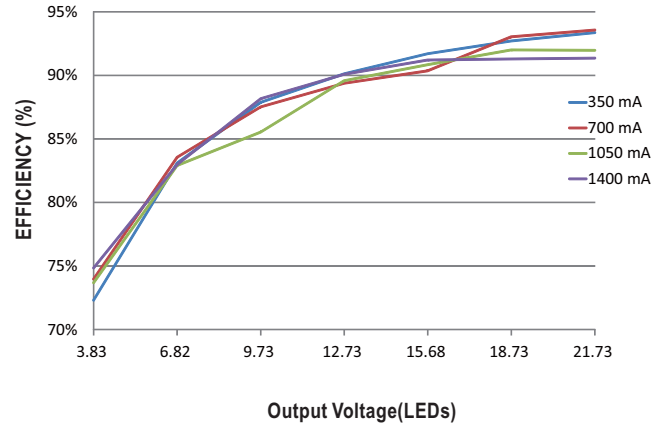


Fig-3 36VDC input, 1~11 LEDs(Vf=3V)

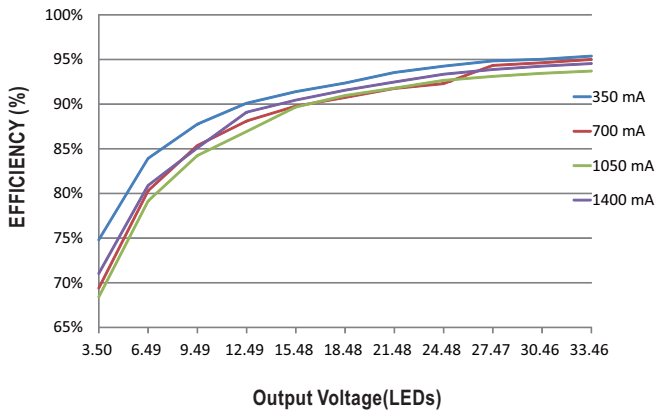
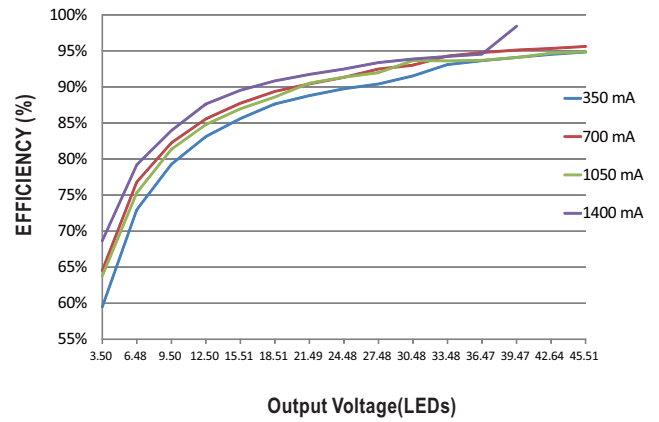


Fig-4 48VDC input, 1~15 LEDs(Vf=3V)



## ■ Derating Curve

