



■ Features :

- Constant current output: 300mA to 700mA
- Wide input voltage: 9 ~ 36VDC
- Wide output LED string voltage: 2 ~ 32VDC
- High efficiency up to 95%
- DC/DC step-down converter
- Built-in EMI filter, comply with EN55015 and FCC part15 without additional input filter and capacitors
- Built-in PWM and remote ON/OFF control
- Protections: Short circuit / Over temperature
- Cooling by free air convection
- Fully encapsulated with IP67 level
- Compact size
- Low cost, high reliability
- Suitable for driving illumination LED
- 3 years warranty



LDD-350L  Blank : pin style  
 W : wire style

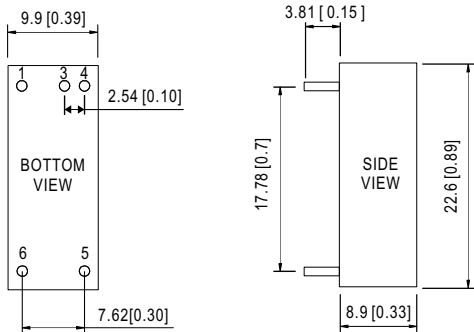
**SPECIFICATION**

ORDER NO.		LDD-300L <input type="checkbox"/>	LDD-350L <input type="checkbox"/>	LDD-500L <input type="checkbox"/>	LDD-600L <input type="checkbox"/>	LDD-700L <input type="checkbox"/>	
OUTPUT	CURRENT RANGE	300mA	350mA	500mA	600mA	700mA	
	VOLTAGE RANGE	2 ~ 32VDC					
	CURRENT ACCURACY (Typ.)	±5% at 24VDC input					
	RIPPLE & NOISE(max.) Note.2	150mVp-p	150mVp-p	150mVp-p	200mVp-p	200mVp-p	
	SWITCHING FREQUENCY	40KHz ~ 1000KHz					
EXTERNAL CAPACITANCE LOAD (max.)		2.2uF					
INPUT	VOLTAGE RANGE	9 ~ 36VDC					
	EFFICIENCY (max.)	95% at full load and 24VDC/36VDC input					
	DC CURRENT	Full load Note.3	300mA	350mA	500mA	600mA	700mA
		No load	10mA				
FILTER		Capacitor					
PWM DIMMING & ON/OFF CONTROL	REMOTE ON/OFF	Leave open if not use Power ON with dimming: DIM ~ -Vin >3.5 ~ 8VDC or open circuit Power OFF : DIM ~ -Vin < 0.5VDC or short					
	PWM FREQUENCY	100 ~ 1KHz					
	QUIESCENT INPUT CURRENT IN SHUTDOWN MODE(max.)	1mA at PWM dimming OFF and 24VDC input					
PROTECTION	SHORT CIRCUIT	Regulated at rated output current Protection type : Can be continued, recovers automatically after fault condition is removed					
	OVER TEMPERATURE	Tj 150°C typically(IC1) detect on main control IC Protection type : Shut down, recovers automatically after temperature goes down					
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					
	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	EMI CONDUCTION & RADIATION	Compliance to EN55015, FCC part 15 class B					
	EMS IMMUNITY	Compliance to EN61000-4-2,3,4,6,8, light industry level, criteria A					
OTHERS	MTBF	2000Khrs min. MIL-HDBK-217F (25°C)					
	DIMENSION	22.6*9.9*8.9mm or 0.89**0.39**0.33" inch (L*W*H)					
	WEIGHT	LDD-L:4g ; LDD-LW:7.3g					
	POTTING MATERIAL	Epoxy(UL94-V0)					
NOTE	1. All parameters are specified at normal input(24VDC), 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: 24VDC input.						

**Mechanical Specification**

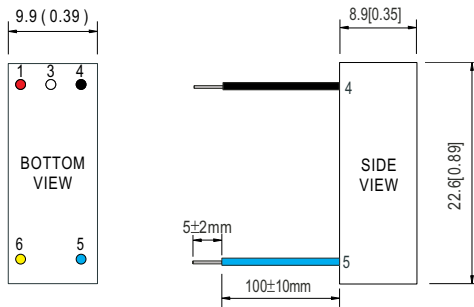
Blank type(LDD - \_\_L):

Unit: mm (inch)



NOTE: Pin size tolerance 0.60  $\phi$   $\pm$ 0.05mm

W type(LDD - \_\_LW):

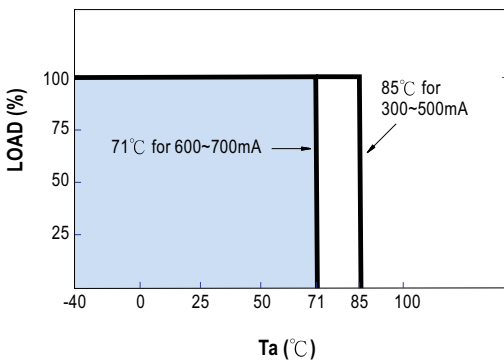


**Pin Configuration**

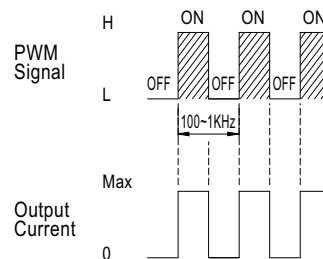
Pin No.	Output	Comment
1	+Vin	DC Supply
3	PWM DIM	ON/OFF and PWM Dimming (Leave open if not used)
4	-Vin	Don't connect to -Vout
5	-Vout	LED - Connection
6	+Vout	LED + Connection

Pin No.	Output	Comment
1	+Vin (Red)	DC Supply
3	PWM DIM (White)	ON/OFF and PWM Dimming (Leave open if not used)
4	-Vin (Black)	Don't connect to -Vout
5	-Vout (Blue)	LED - Connection
6	+Vout (Yellow)	LED + Connection

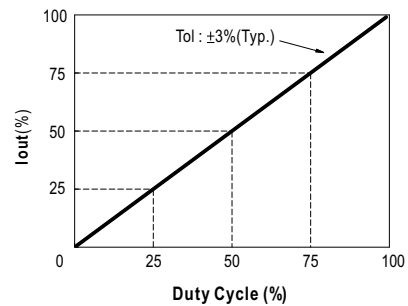
**Derating Curve**



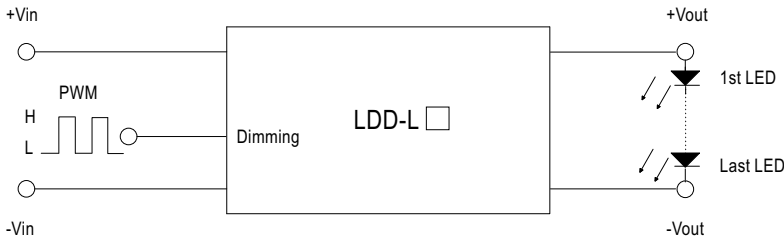
**PWM Dimming Control**



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



**Standard Application**



H: >3.5~8VDC or open circuit

L: <0.5VDC or short

**Efficiency VS Output Voltage(Number of LEDs)**

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

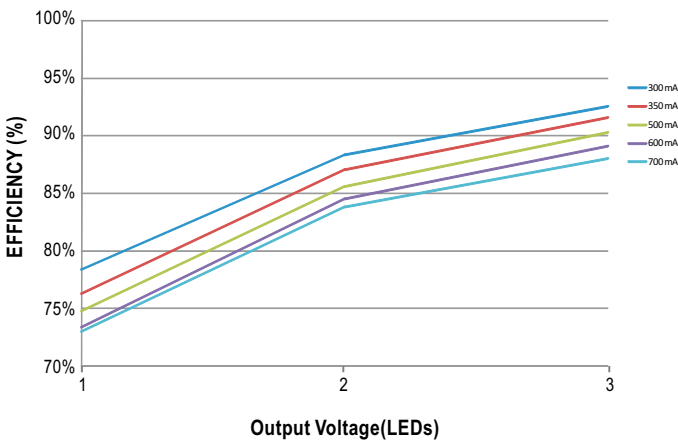


Fig-2 24VDC input, 1~7 LEDs(Vf=3V)

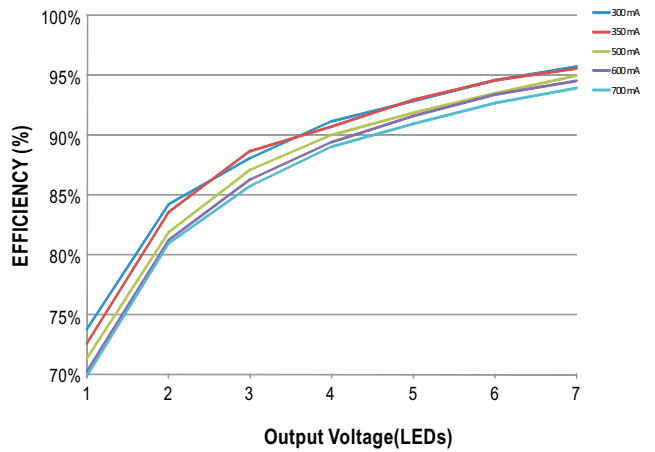


Fig-3 36VDC input, 1~10 LEDs(Vf=3V)

