



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!



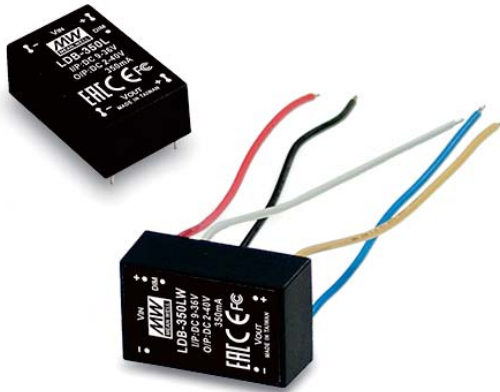
Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China





■ Features :

- DC/DC buck-boost converter
- Constant current output: 300mA to 600mA
- Wide input voltage: 9 ~ 36VDC
- Wide output LED string voltage: 2 ~ 40VDC
- High efficiency up to 91%
- 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



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

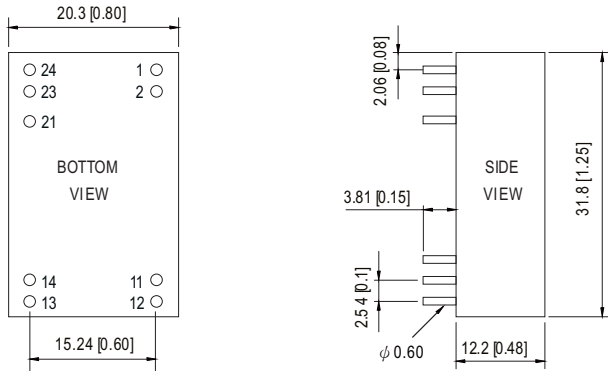
SPECIFICATION

ORDER NO.		LDB-300L <input type="checkbox"/>	LDB-350L <input type="checkbox"/>	LDB-500L <input type="checkbox"/>	LDB-600L <input type="checkbox"/>	
OUTPUT	CURRENT RANGE	300mA	350mA	500mA	600mA	
	VOLTAGE RANGE	2 ~ 40VDC	2 ~ 40VDC	2 ~ 32VDC	2 ~ 30VDC	
	CURRENT ACCURACY (Typ.)	±5%				
	RIPPLE & NOISE(max.) Note.2	150mVp-p	150mVp-p	150mVp-p	200mVp-p	
	SWITCHING FREQUENCY	350KHz				
	NO LOAD OUTPUT VOLTAGE	75VDC				
INPUT	VOLTAGE RANGE	9 ~ 36VDC	9 ~ 36VDC	9 ~ 30VDC	9 ~ 28VDC	
	EFFICIENCY (max.)	12VDC	89%	89%	89%	
		24VDC	90%	90%	91%	
	DC CURRENT	Full load	12VDC 1070mA 24VDC 530mA	1120mA 610mA	1235mA 710mA	1610mA 910mA
		No load	10mA			
FILTER	Capacitor					
PWM DIMMING & ON/OFF CONTROL	REMOTE ON/OFF	Leave open if not use Power ON with dimming: DIM ~ -Vin >2 ~ 10VDC or open circuit Power OFF : DIM ~ -Vin < 0.5VDC or short				
	PWM FREQUENCY	100 ~ 1KHz				
	MAX. PWM SIGNAL CURENT	1mA				
PROTECTION	SHORT CIRCUIT	Regulated at rated output current Protection type: Can be continued, recovers automatically after fault condition is removed				
	OVER TEMPERATURE	Tj 145°C typically(IC1) detect on main control IC Protection type : Shut down, recovers automatically after temperature goes down				
ENVIRONMENT	WORKING TEMP.	-40 ~ + 71°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.)	110°C					
EMC	SAFETY STANDARDS	EAC TP TC 004 approved				
	EMC EMISSION	Compliance to EN55015, FCC part 15 class B, EAC TP TC 020				
	EMC IMMUNITY	Compliance to EN61000-4-2,3,4,6,8, light industry level, criteria A, EAC TP TC 020				
OTHERS	MTBF	600Khrs min. MIL-HDBK-217F (25°C)				
	DIMENSION	31.8*20.3*12.2mm or 1.25**0.8**0.48" inch (L*W*H)				
	WEIGHT	LDB-L:15.6g ; LDB-LW:18g				
	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.The output of LDB-L should not be connected to the input of the same unit or output from other sources.					

Mechanical Specification

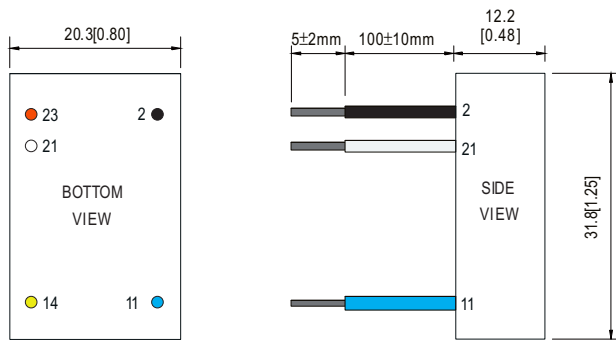
Blank type(LDB - _L):

Unit: mm (inch)



NOTE: Pin tolerance \pm 0.05mm

W type(LDB - _LW):



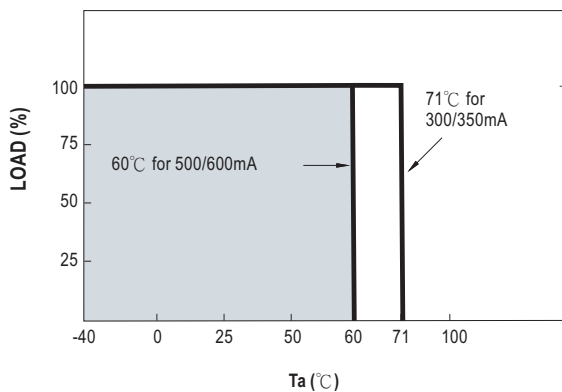
NOTE: All wires UL3385 22AWG

Pin Configuration

Pin No.		Comment
1,2	-Vin	Don't connect to -Vout
11,12	-Vout	LED - Connection
13,14	+Vout	LED + Connection
21	PWM DIM	ON/OFF and PWM Dimming (Leave open if not used)
23,24	+Vin	DC Supply

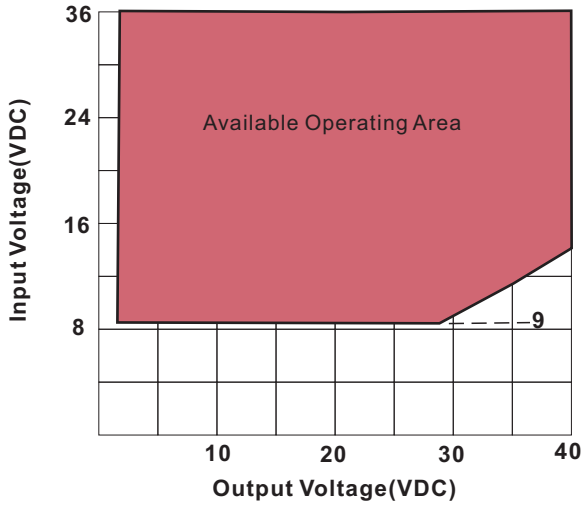
Pin No.		Comment
2	-Vin (Black)	Don't connect to -Vout
11	-Vout (Blue)	LED - Connection
14	+Vout (Yellow)	LED + Connection
21	PWM DIM (White)	ON/OFF and PWM Dimming (Leave open if not used)
23	+Vin (Red)	DC Supply

Derating Curve



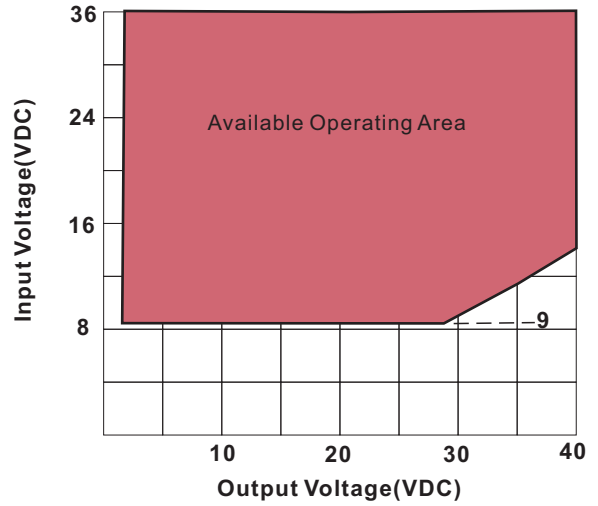
■ Safe Operating Area

OUTPUT CURRENT 300mA



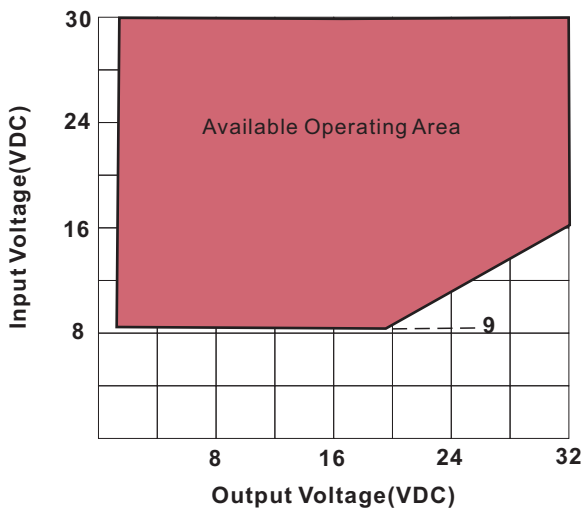
V_{in} 9V up to V_{out}=27V
V_{in} 12V up to V_{out}=36V

OUTPUT CURRENT 350mA



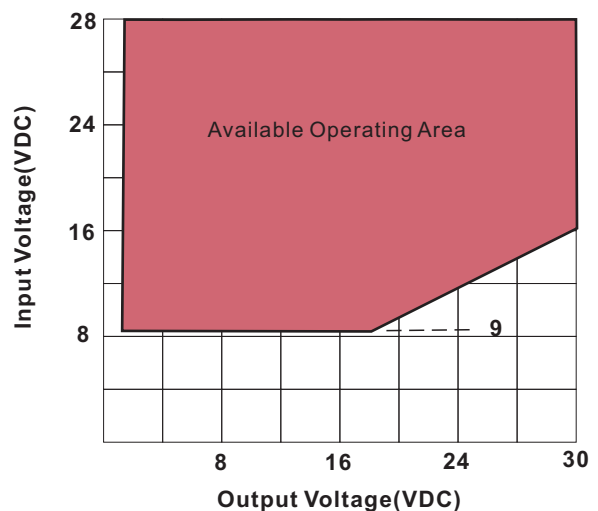
V_{in} 9V up to V_{out}=27V
V_{in} 12V up to V_{out}=36V

OUTPUT CURRENT 500mA



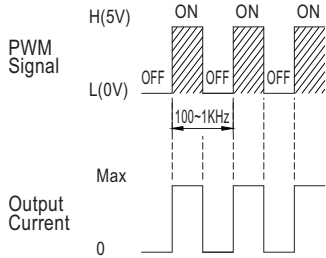
V_{in} 9V up to V_{out}=20V
V_{in} 12V up to V_{out}=24V
V_{in} 16V up to V_{out}=32V

OUTPUT CURRENT 600mA

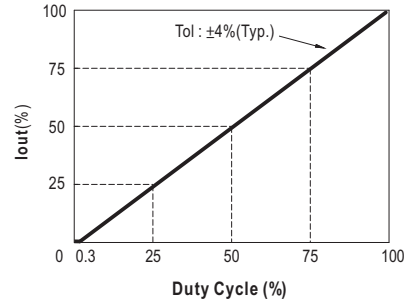


V_{in} 9V up to V_{out}=18V
V_{in} 12V up to V_{out}=24V

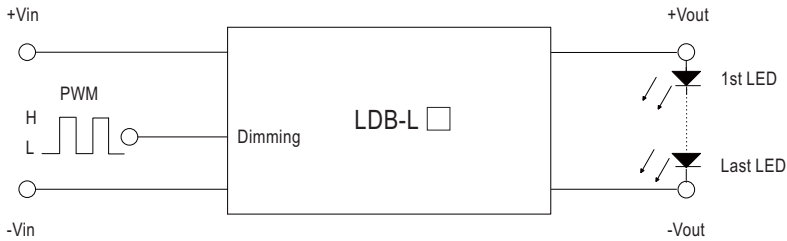
PWM Dimming Control



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



Standard Application



H: >2~10VDC or open circuit
L: <0.5VDC or short

Efficiency VS Output Voltage(Number of LEDs)

