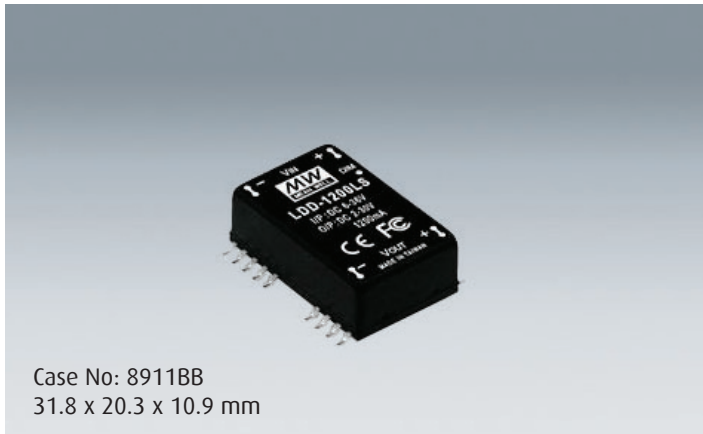


LDD-1000-1500LS Series

DC-DC Constant Current Step-Down LED Driver



Case No: 8911BB
31.8 x 20.3 x 10.9 mm

Features

- DC/DC step-down converter
- Constant Current Output: 1000mA to 1500mA
- Wide input voltage: 6 ~ 36 VDC
- Wide output LED string voltage: 2 ~ 30VDC
- High efficiency up to 95%
- Built-in EMI filter, comply with EN55015 and FCC part 15 without additional input filter and capacitors
- Built-in PWM +analog dimming and remote ON/OFF control
- Protections: Short Circuit
- Cooling by free air convection
- Fully encapsulated with IP67 level for pin and wire style
- Non-potted, optional conformal coating for SMD style (order No: LDD-1000 LSC)
- Suitable for driving illumination LED
- 3 years warranty



Specification

INPUT	Voltage	6 ~ 36VDC			
	Efficiency	95% at full load and 24VDC			
	DC Current	Full load:	990mA	1160mA	1450mA
		No Load:	5mA		
	Filter	Capacitor			
OUTPUT	MODEL No.	LDD-1000LS	LDD-1200LS	LDD-1500LS	
	Voltage	2 ~ 30VDC			
	Current Accuracy	±5% at 24VDC input			
	Current Range	1000mA	1200mA	1500mA	
	Ripple Noise MAX.	1.5mVp-p	1.5mVp-p	1.5mVp-p	
	Switching Frequency	1000KHz			
	External Capacitance Load	2.2uF			
PWM DIMMING & ON/OFF CONTROL	Remote On/Off	Leave open if not in use Power ON with dimming: DIM~ -VIN >2.6 ~ 5.5VDC or open circuit Power OFF: DIM~ -VIN <0.4VDC or short			
	PWM Frequency	100 ~ 500KHz			
	Quiescent Input Current in Shutdown Mode	1mA at PWM dimming OFF and 24VDC input			
ANALOG DIMMING & ON/OFF CONTROL	Remote On/Off	Leave open if not in use Power ON with dimming: DIM~ -VIN >0.5 ~ 2.5VDC or open circuit Power OFF: DIM~ -VIN <0.4VDC or short			
	Short Circuit	Regulated at rated output current Protection Type: Can be continued, recovers automatically after fault condition is removed			
ENVIRONMENT	Working Humidity	20% ~ 85% RH non-condensing			
	Storage Temp., Humidity	-55 ~ +125°C, 10~95%RH			
	Temp. Co-efficient	±0.03%/°C			
	Vibration	10~500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes			
EMC	Operating Case Temp.	100 °C			
	EMC Emission	Compliance to EN55015, FCC part 15 class B			
	EMC Immunity	Compliance to EN61000-4-2,3,4,6,8, light industry level, criteria A			
OTHERS	M.T.B.F.	2000K hrs min. MIL-HDBK-217F (25°C)			
	Potting Material	Without Potted			

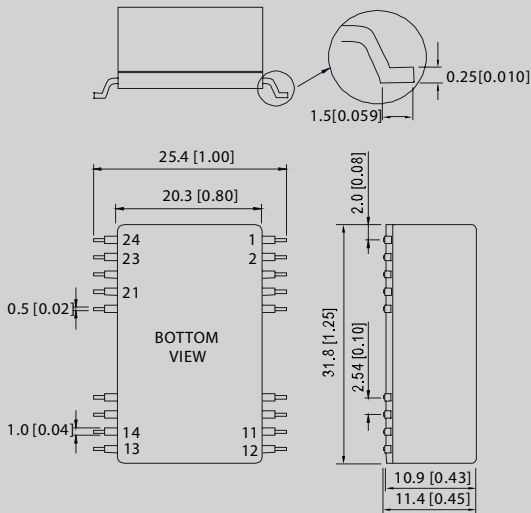
1. All parameters are specified at normal input (24VDC), rated load, 25°C 70% of RH ambient.
2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uF capacitor.
3. Test condition: 36VDC input.
4. Output voltage will always step down by 3 volts from input DC voltage.

LDD-1000-1500LS Series

DC-DC Constant Current Step-Down LED Driver



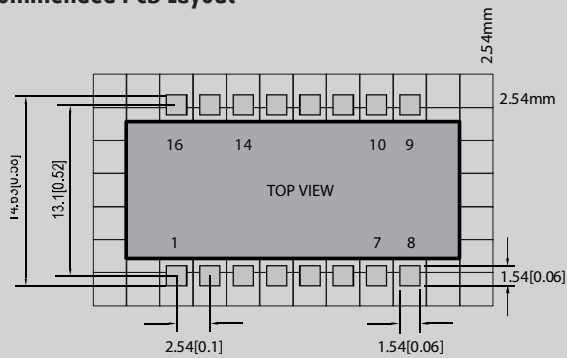
Mechanical Specification



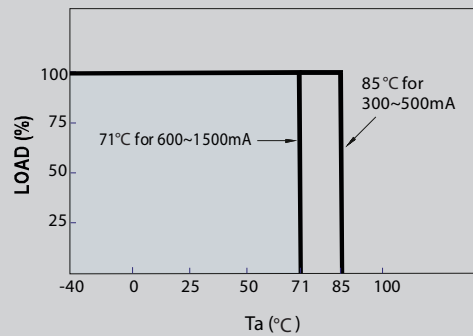
Pin Configuration

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

Recommended PCB Layout



Derating Curve

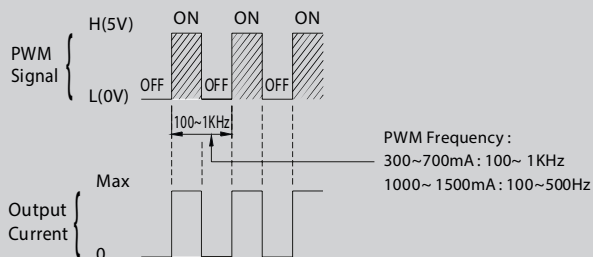


PWM Dimming Control

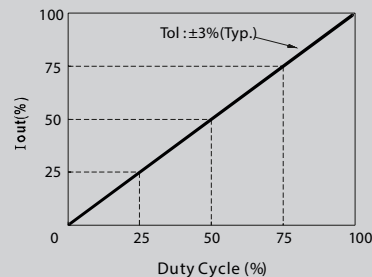
I_o Adjustment by PWM signal :



- 300 ~ 700mA :
H: > 3.5~8VDC or open circuit
L: < 0.5VDC or short
- 1000 ~ 1500mA :
H: > 2.6~5.5VDC or open circuit
L: < 0.4VDC or short



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



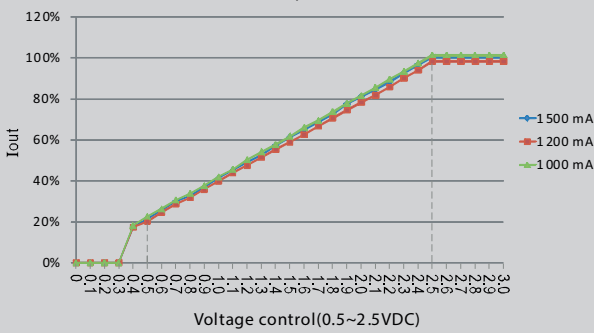
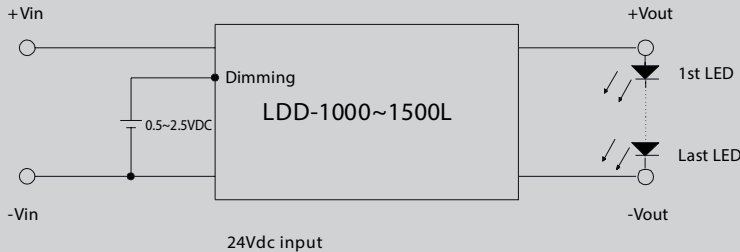
LDD-1000-1500LS Series

DC-DC Constant Current Step-Down LED Driver



Analog Dimming Control

I_o Adjustment by DC voltage :



Efficiency VS Output Voltage (Number of LEDs)

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

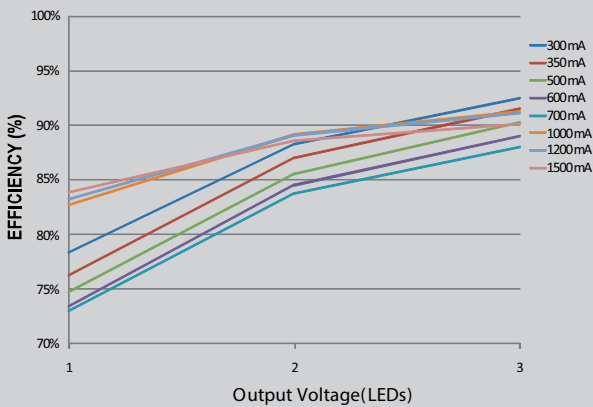


Fig-2 24VDC input, 1~7 LEDs(Vf=3V)

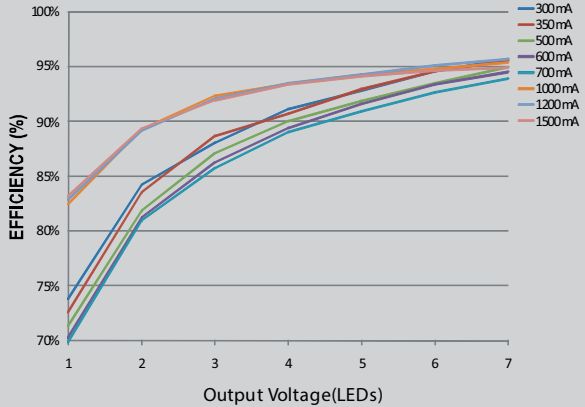


Fig-3 36VDC input, 1~10 LEDs(Vf=3V)

