



## Up to 1200mA | LED Driver



### FEATURES:

- ◆ High Power LED Driver
- ◆ Wide (7:1) Input Voltage Range
- ◆ Remote Control Function
- ◆ 24 Pin DIP Package
- ◆ Constant Output Current
- ◆ High Efficiency (Up to 96%)
- ◆ Dimming Function (0-100%)
- ◆ Operating Temperature -40°C~+85°C

### Models Single output

Model	Input Voltage (V)	Output Voltage (V)	Output Current (mA)	Efficiency (%)
LED-3630C	5-36	2-32	300	96
LED-3635C	5-36	2-32	350	96
LED-3650C	5-36	2-32	500	96
LED-3660C	5-36	2-32	600	96
LED-3670C	5-36	2-32	700	96
LED-3680C	5-36	2-32	800	96
LED-3690C	5-36	2-32	900	96
LED-36100C	5-36	2-32	1000	96
LED-36110C	5-36	2-32	1100	96
LED-36120C	5-36	2-32	1200	96

NOTE:All specifications in this datasheet are measured at an ambient temperature of 25°C, humidity<75%, nominal input voltage and at rated output load unless otherwise specified.

### Input Specifications

Parameters	Nominal	Typical	Maximum	Units
Voltage range	24	5-36	36	VDC
On/Off Control (Analog Control)	ON: Open or 0V > V < 0.6V			
Input voltage range (0-1.2Vdc) (Leave open if not used)	OFF: 0.6V > V < 5V (1mA Max)			
Dimming Control (Digital Control)	Max PWM Frequency (10%-90%) 200Hz			
Dimming Control (Analog Control)	0.56V (1mA max) Analog Voltage (0%~100%) models: LED-3630C, LED-3635C, LED-3650C			
Input voltage range (0-1.2Vdc)* (Leave open if not used)	0-6.5V (1mA max) Analog Voltage (0%~100%) models: LED-3660C, LED-3670C, LED-3680C, LED-3690C, LED-36100C, LED-36110C, LED-36120C			

\*NOTE: Exceeding 12Vdc on Dimming Control pin will damage the converter.

### Output Specifications

Parameters	Conditions	Typical	Maximum	Units
Current accuracy		±2		%
Short Circuit protection	Regulated at the rated current for each model			
Output Open Protection	No Load			
Max load capacitance			100	μF
Ripple & Noise	20MHz Bandwidth	120		mV P-P



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## General Specifications

Parameters	Conditions	Typical	Maximum	Units
Switching frequency	100% load	260		Khz
Operating temperature		-40 to +85		°C
Storage temperature		-40 to +125		°C
Max Case temperature			100	°C
Cooling	Free Air Convection			
Thermal Impedance		13.17		°C/W
Humidity			95	% RH
Case material	Non-Conductive Black Plastic			

## General Specifications (continued)

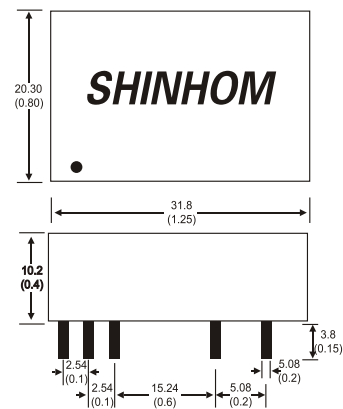
Parameters	Conditions	Typical	Maximum	Units
Potting material	Epoxy (Flammability UL94V-0)			
Weight		12		g
Dimensions (LxWxH)		1.25x0.80x0.40 inches	31.80x20.30x10.20 mm	

## Pin Out Specifications

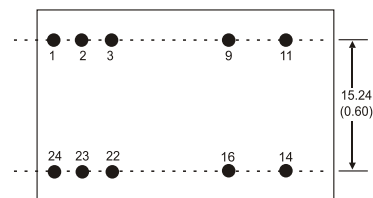
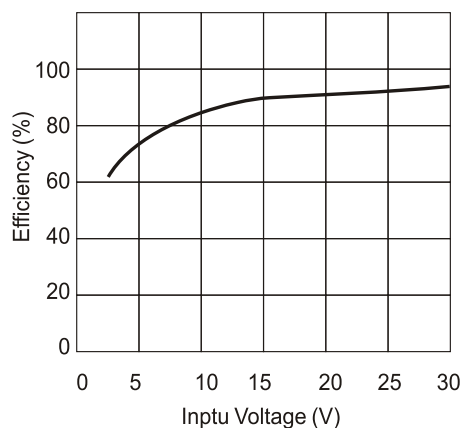
Pin	Single
1	Remote On/Off
2	-Vin
3	-Vin
9	NC
11	NC
14	LED+
16	LED-
22	+Vin
23	+Vin
24	DIM

NC: Not Connected

## Dimensions



## Efficiency vs Input Voltage

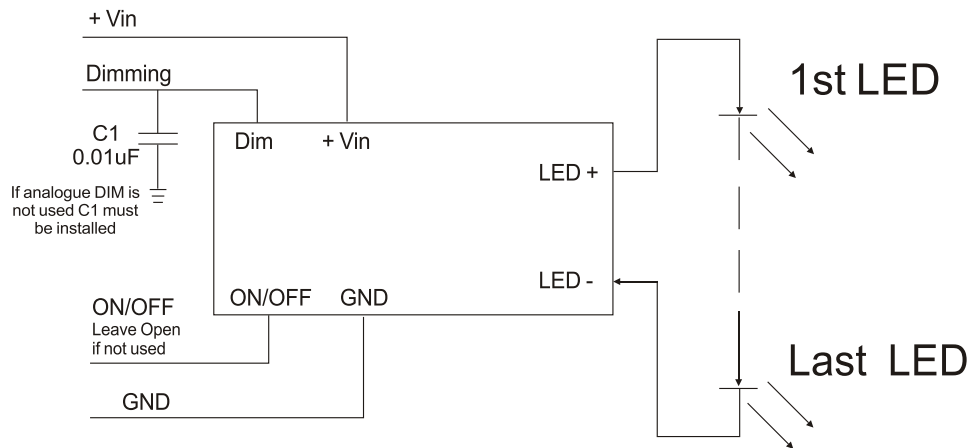


## Mechanical Tolerances

Case Tolerance  $\pm 0.25$ mm Or  $\pm 0.01$  Inches  
Pin Tolerance  $\pm 0.05$  Or  $\pm 0.002$

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### Application Circuit

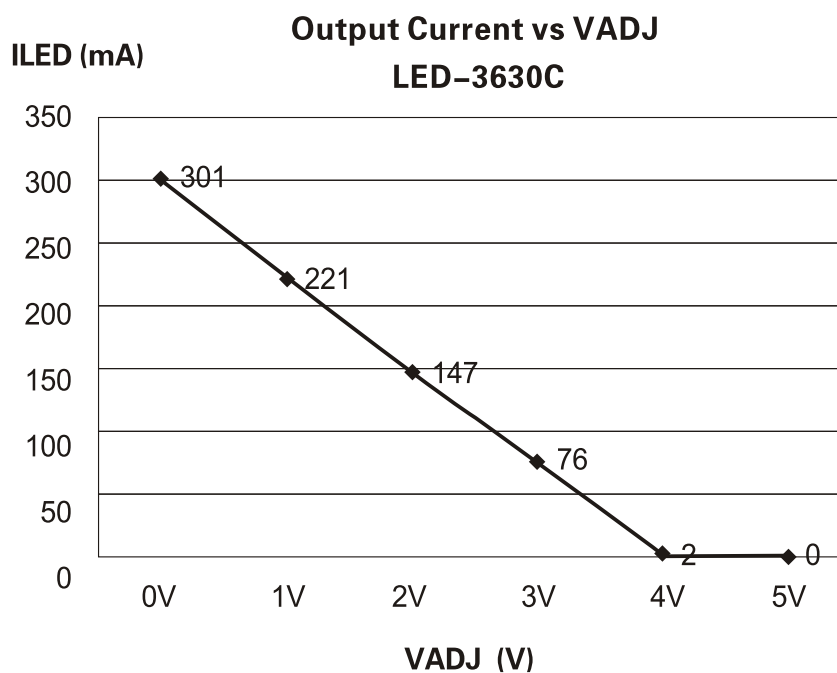


Note: The relation between input and output voltage for LED-C LED Driver step-down converter series is:

$$V_{in} - 4V \geq V_{out} \geq \text{Total LED voltage}$$

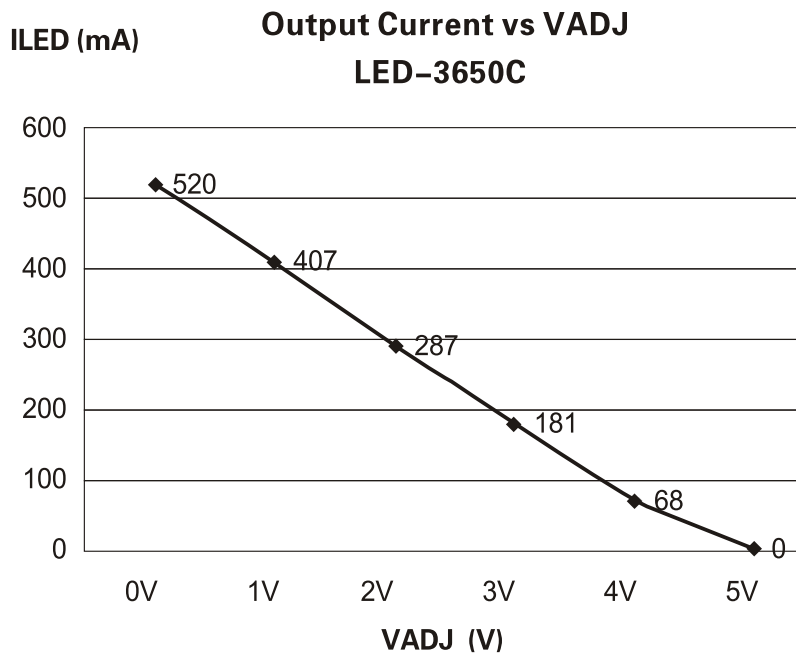
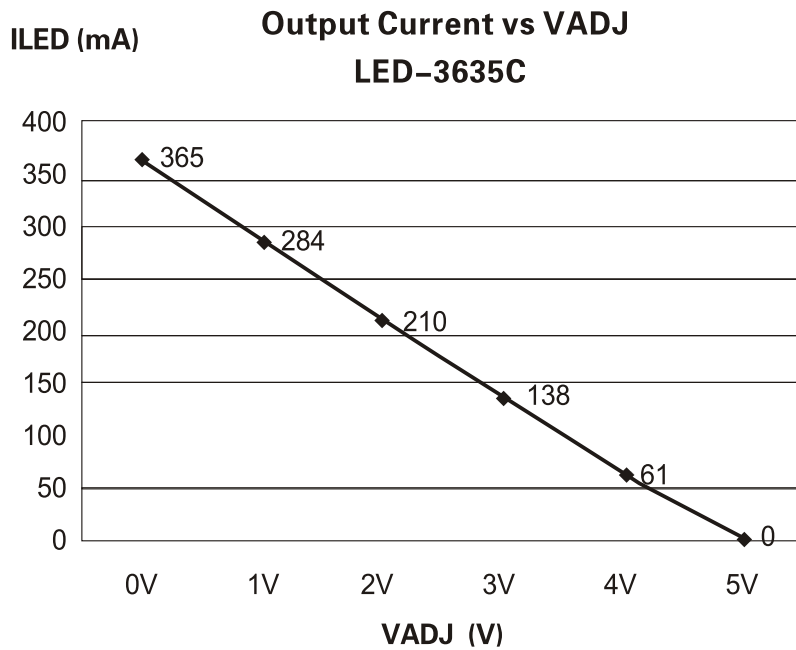
$$V_{out} / \text{LED voltage} = \text{LED quantity}$$

### Output Current Versus Dimming Voltage



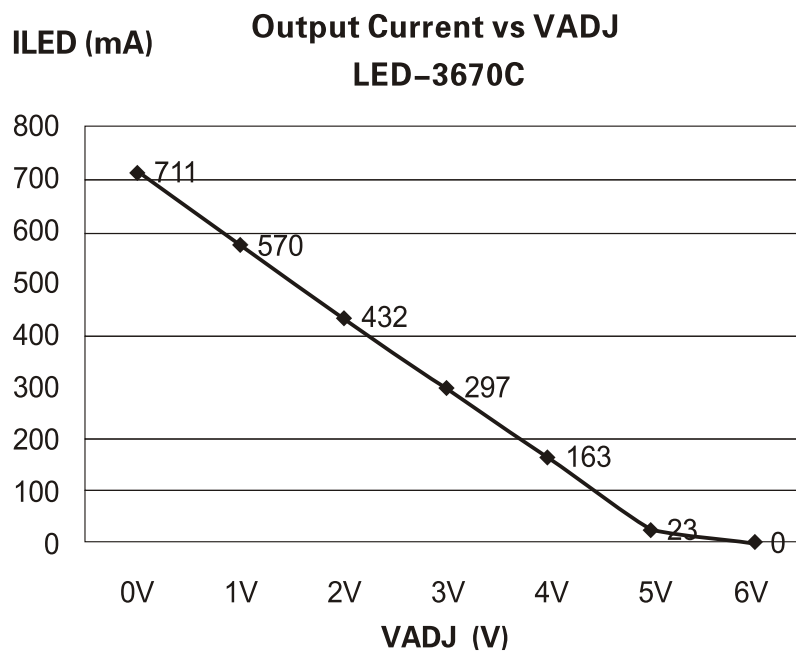
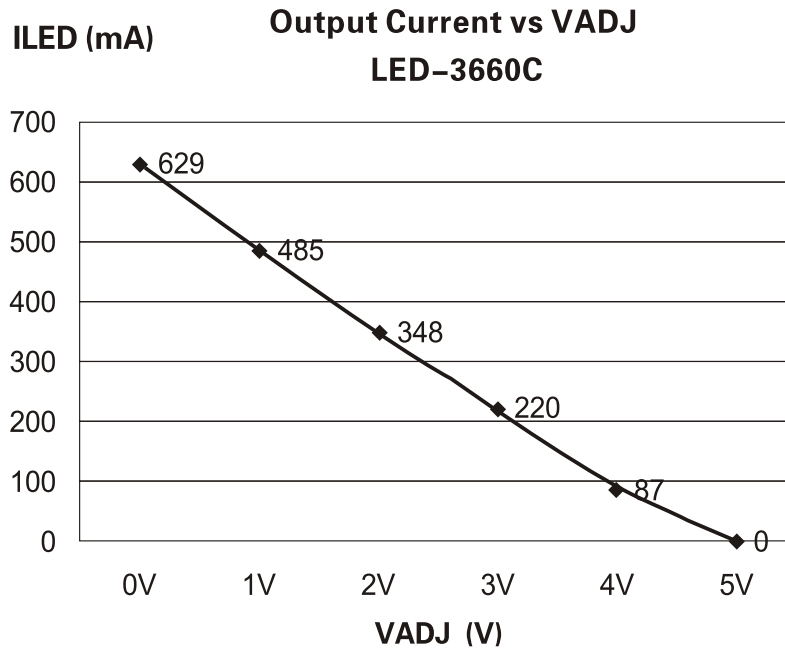


### Output Current vs Dimming Voltage (continued)



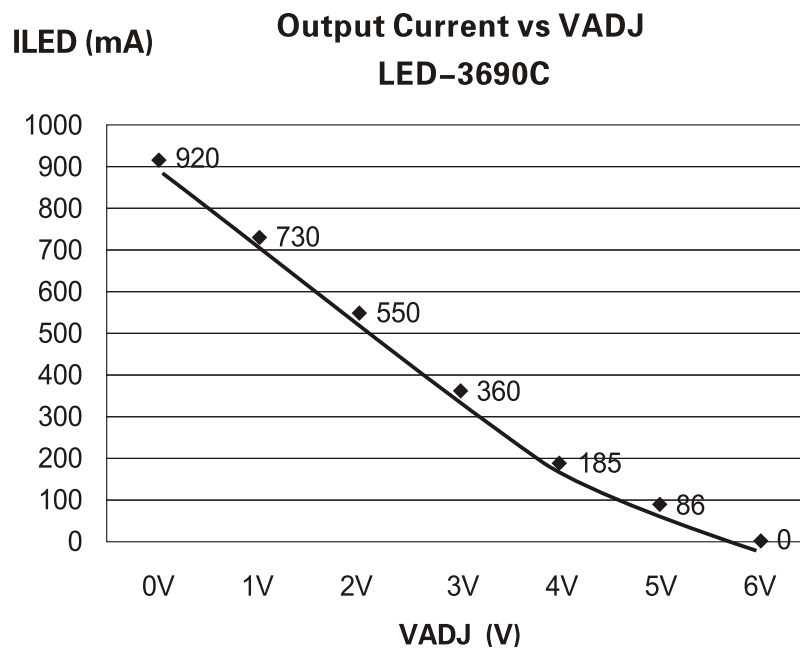
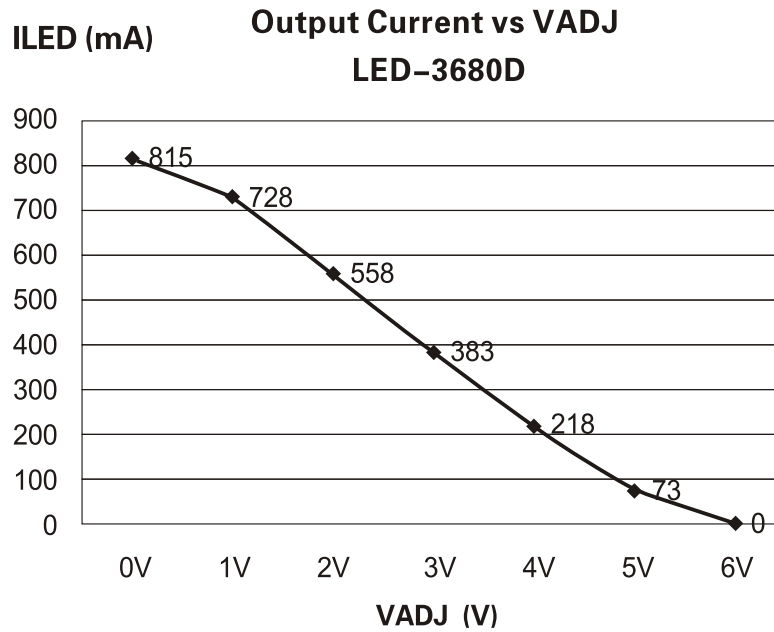


### Output Current vs Dimming Voltage (continued)





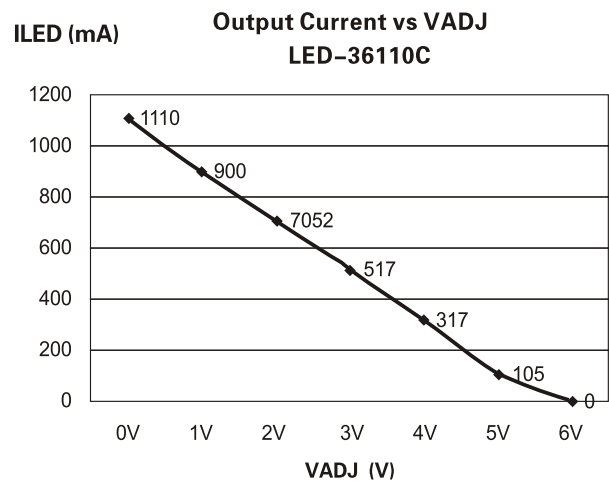
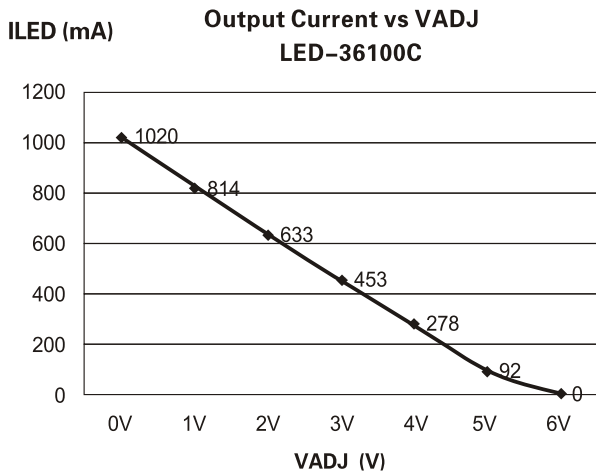
### Output Current vs Dimming Voltage (continued)



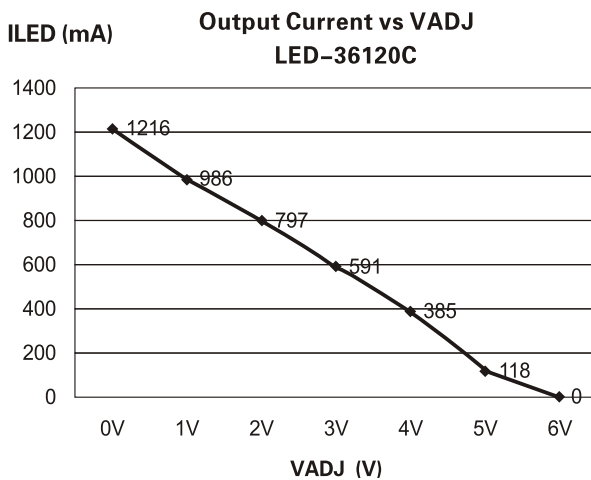


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## Output Current vs Dimming Voltage (continued)



## Output Current vs Dimming Voltage (continued)



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