



FEATURES:

- DIP14 package Power LED driver
- Constant current output
- Wide (4:1) input voltage range
- High efficiency up to 95%
- Operating Temperature range -40°C - +85°C
- Open and Short LED Protection
- PWM/Digital and Analog Voltage dimming
- Remote ON/OFF Control

Models

Single output

Model	Input Voltage (V)	Output Voltage (V)	Output Current (mA)	Efficiency (%)
AMLDL-3030Z	7-30	2-27	300	95
AMLDL-3035Z	7-30	2-27	350	95

Input Specifications

Parameters	Nominal	Typical	Maximum	Units
Voltage range	24	7-30		VDC
Filter	Capacitor			
Absolute Maximum Rating			40	VDC
Peak Input Voltage time			500	ms
DC/DC ON (Leave open if not used)	ON –Open or 0.3V<Vadj<1.25			
DC/DC OFF	OFF(shutdown) – Vadj<0.15			
Maximum Remote pin drive current	Vadj = 1.25V		1	mA
Quiescent Current in Shutdown mode	Vin = 30V, Vadj <0.15		0.25	mA
On/Off Control (Digital Control)	Max PWM Frequency 1KHz			
Minimum Switch ON/OFF time		200		ns
On/Off Control (Analog Dimming Control) (Leave open if not used)	Input voltage range	0.3-1.25		VDC
Drive with DC Voltage	0.3V < VADJ<1.25V to adjust output current from 25% to 100%			
Control Voltage Range limits	ON – 0.2 – 0.3V (Vadj rise)			
	OFF – 0.15-0.25V (Vadj fall)			
Maximum Analog pin drive current	Vadj = 1.25V		0.2	mA

Output Specifications

Parameters	Conditions	Typical	Maximum	Units
Current accuracy		±5		%
Output Voltage range	V input = 30V	2-27		VDC
Output current	Vin – Vout >1.5V to 3V		300	mA
Short Circuit protection	Regulated at the rated current for each model			
Output Open Protection	No load			
Max load capacitance			47	µF
Temperature coefficient	Ta = -40 to +85°C	±0.03		%/°C
Ripple & Noise	20MHz Bandwidth	200		mV p-p

General Specifications

Parameters	Conditions	Typical	Maximum	Units
Switching frequency	100% load	45 - 380		KHz
Operating temperature		-40 to +85		°C
Storage temperature		-40 to +125		°C
Maximum case temperature			100	°C
Thermal Impedance	Free air convection	+35		°C/W
Cooling	Free air convection			
Humidity			95	% RH
Case material	Non-Conductive Black Plastic (UL94-V0 rated)			
Weight		2.6		g

General Specifications (continued)

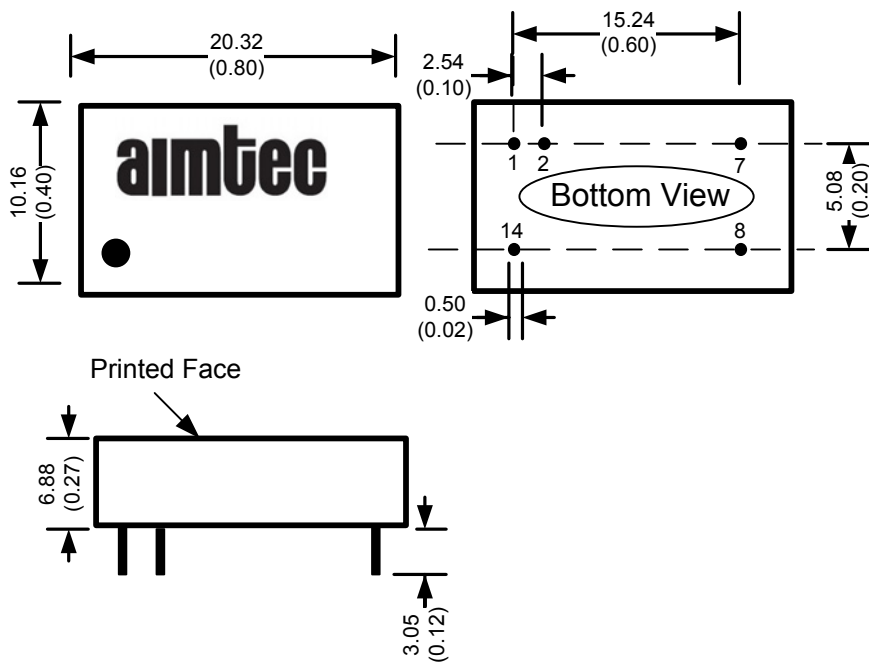
Parameters	Conditions	Typical	Maximum	Units
Dimensions (L x W x H)		0.80 x 0.40 x 0.27 inches	20.32 x 10.16 x 6.88 mm	
MTBF		> 500 000hrs (MIL-HDBK-217 F at +25°C)		
Maximum Soldering Temperature	1.5mm from case for 10sec.		260	°C

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

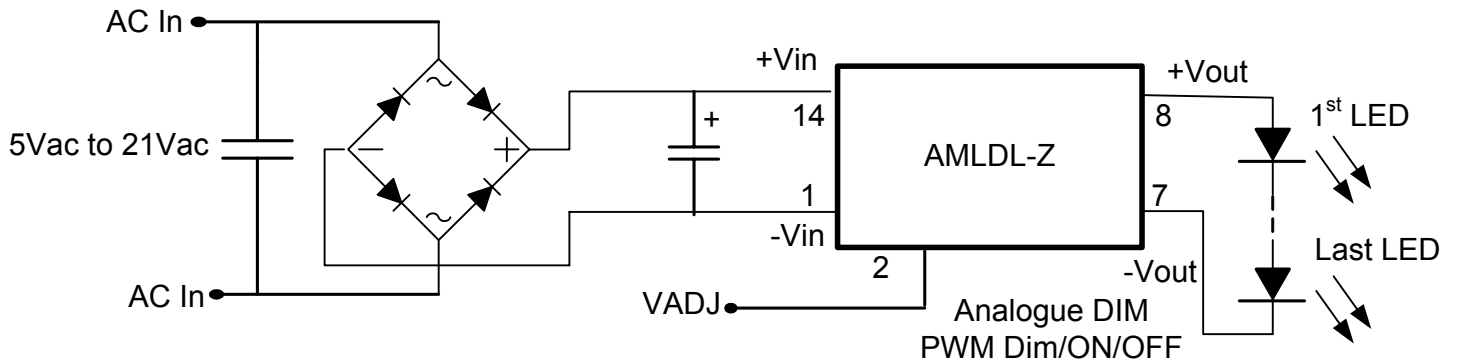
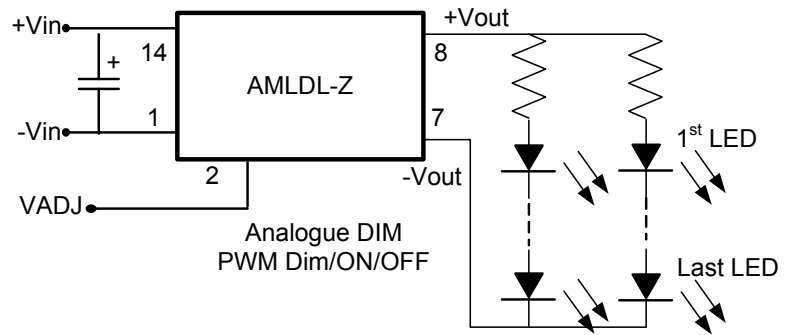
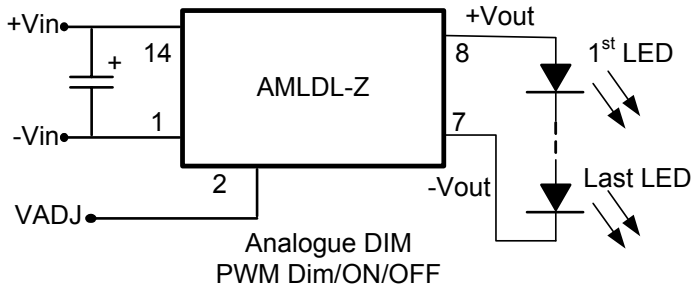
Pin Out Specifications

Pin	Single	
1	- V Input	- DC Supply
2	Vadj	PWM/ON/OFF or not used
7	- V Output	LED Cathode connection
8	+ V Output	LED Anode connection
14	+ V Input	+ DC Supply

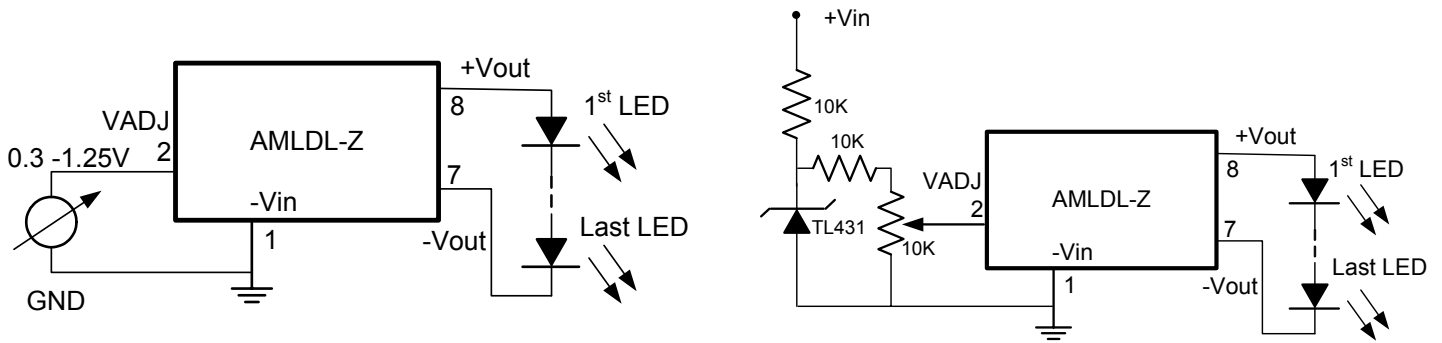
Dimensions



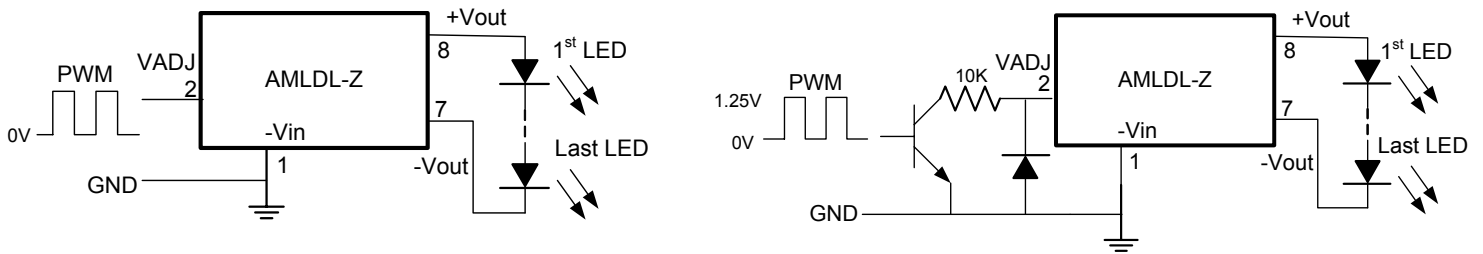
Application circuit examples:



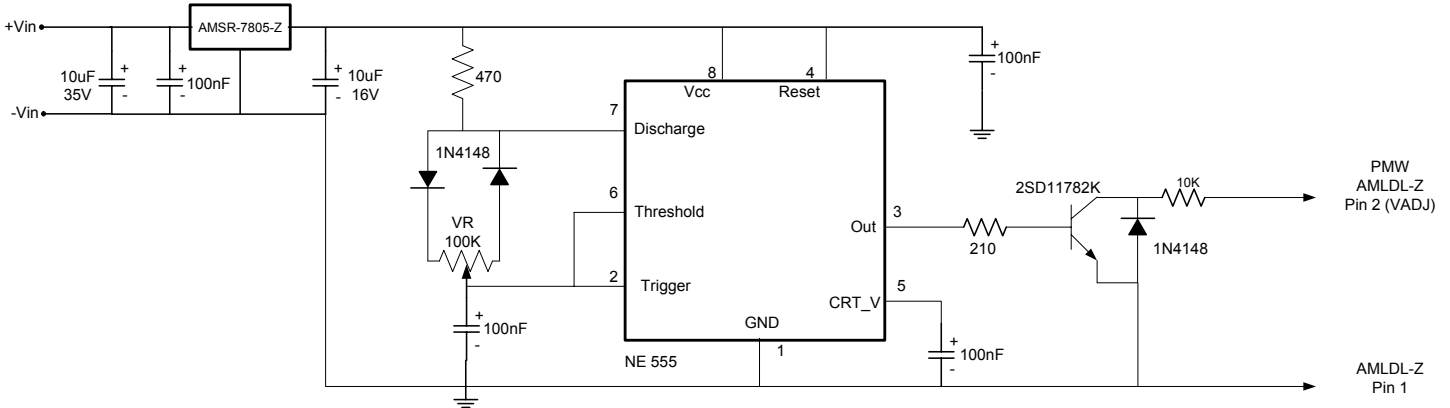
Output Current Adjustment by External DC Control Voltage:



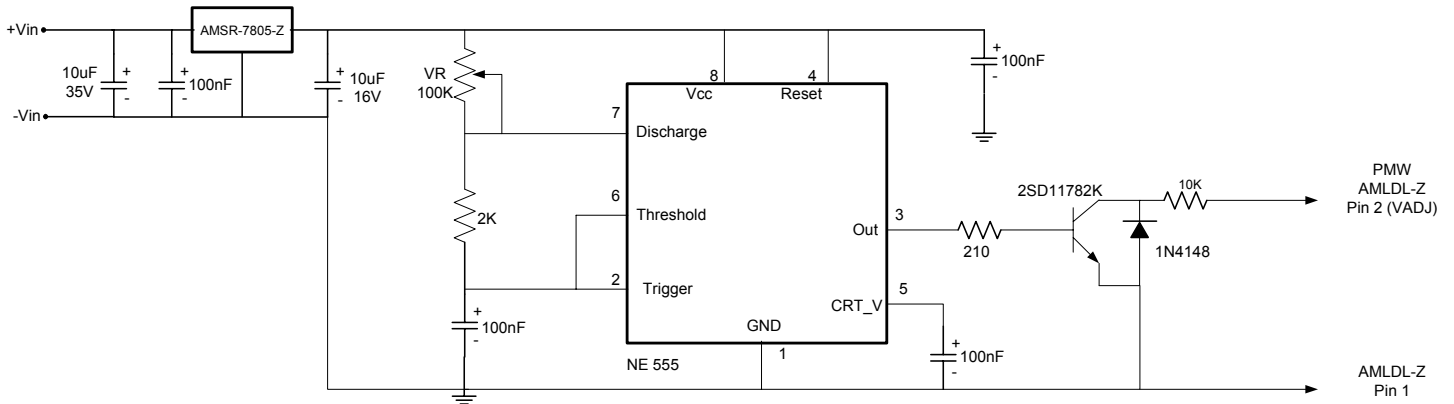
Output Current Adjustment by PWM Control:



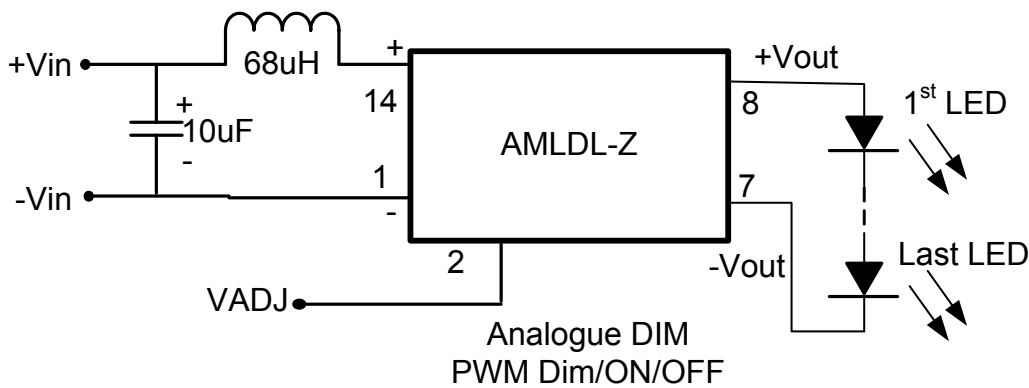
Output Current Adjustment by PWM Control (Dimming):



Output Current Adjustment by PWM Control (Flash):

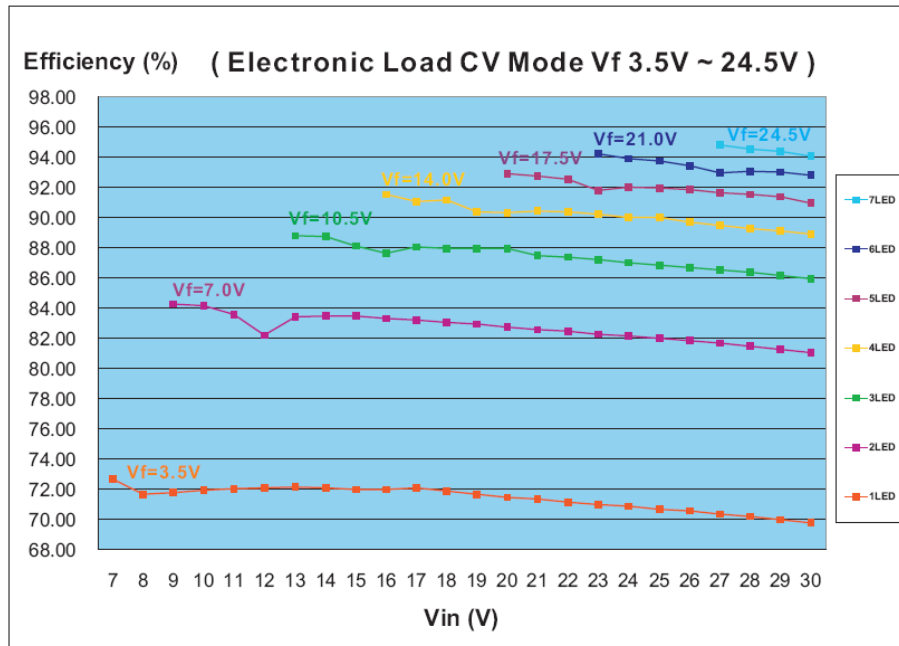
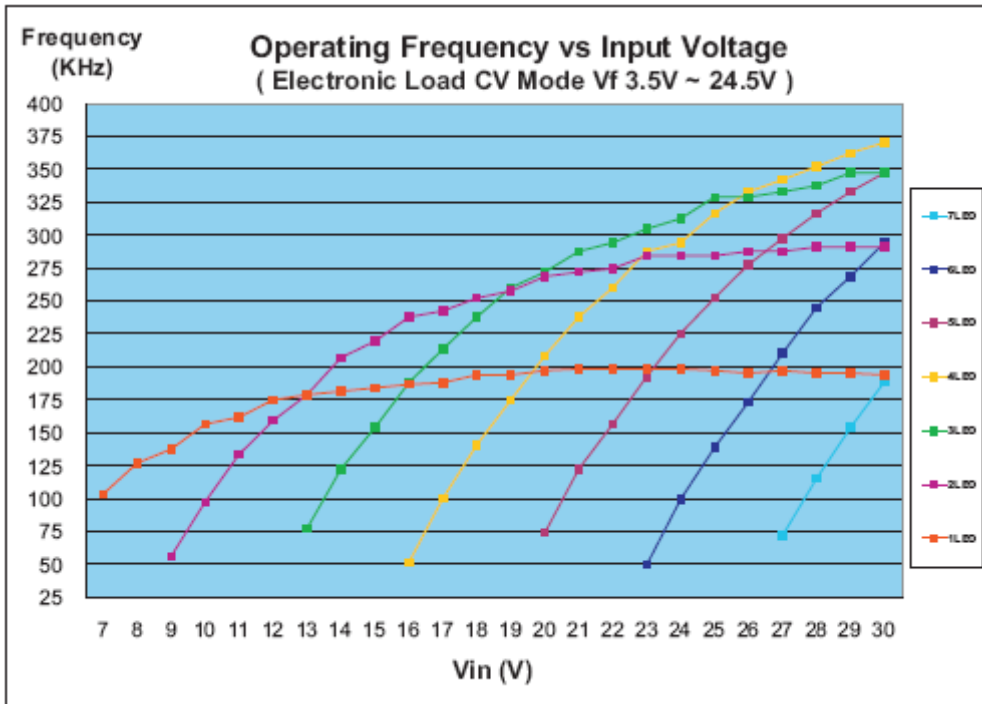


Recommended Class B EMI Filter:



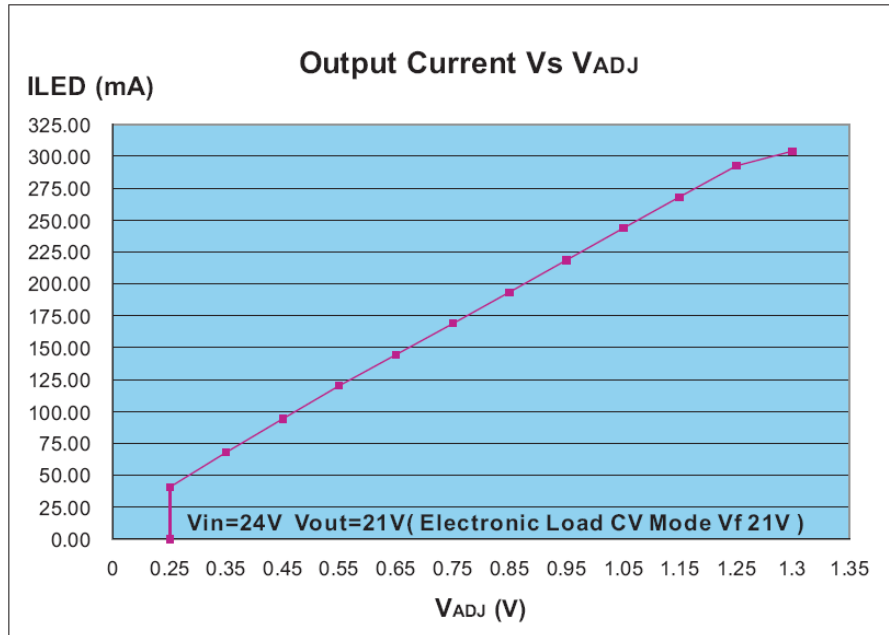
Typical Characteristics:

AMLDL-3030Z

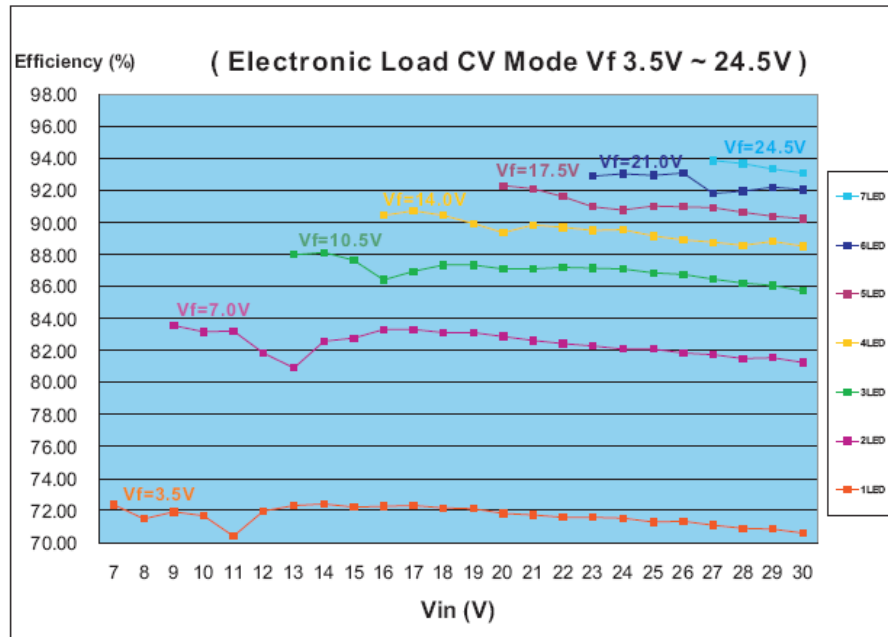


Typical Characteristics:

AMLDL-3030Z (continued)

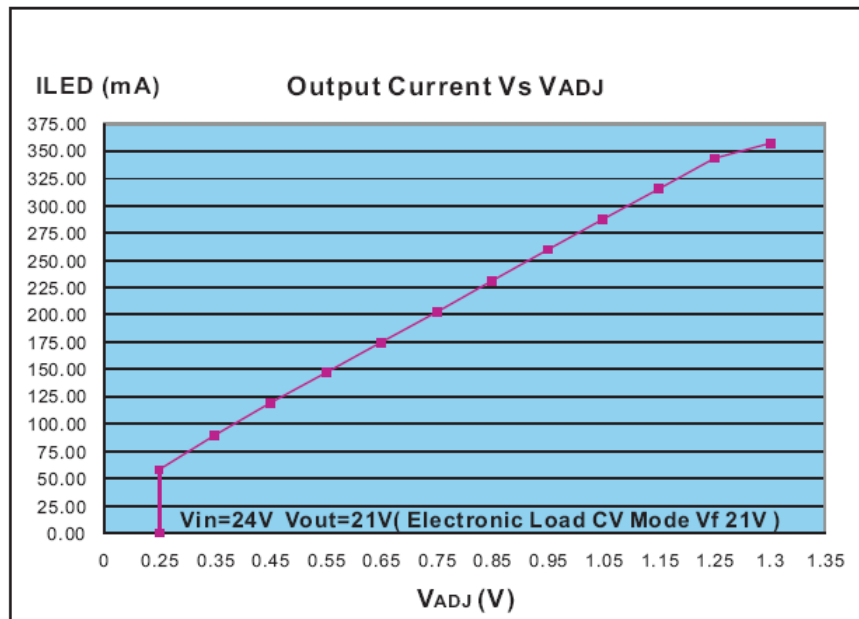
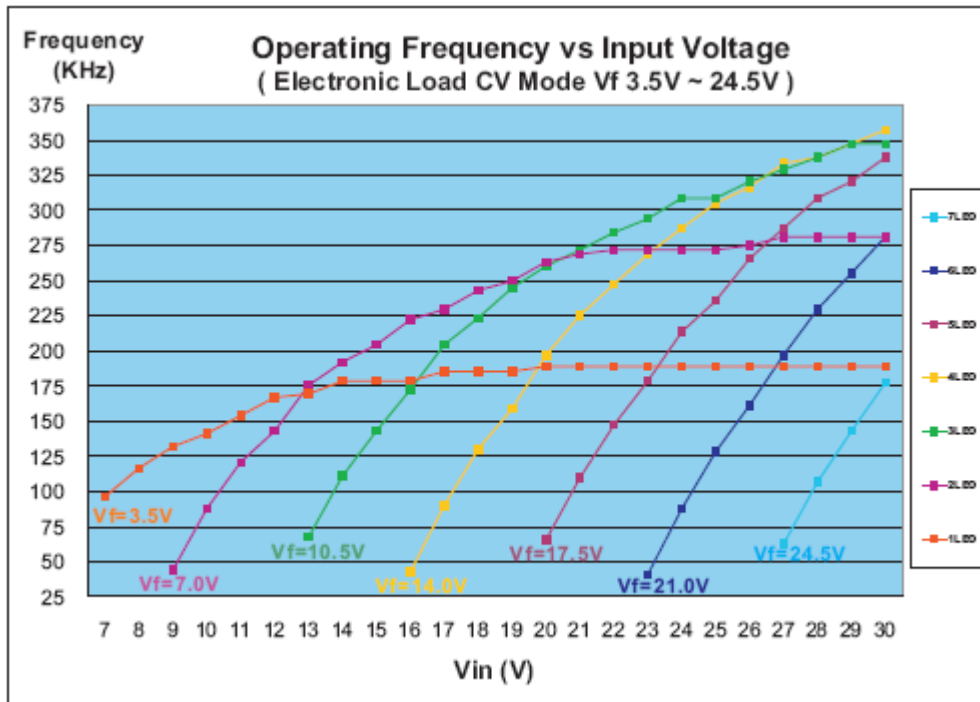


AMLDL-3035Z



Typical Characteristics:

AMLDL-3035Z (continued)



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