

Description

The LD-A001 is a PWM based LED Driver with an integrated 40V Power transistor with an input voltage range of 5V – 18V.

The driver supports a potentiometer based dimming control. The potentiometer can be replaced by a fixed resistor voltage divider for providing a fixed brightness.

The Power transistor supports a load current upto 200mA but its range can be extended with the use of an external power transistor.

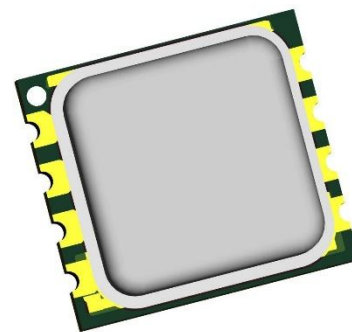
The LA-A001-E is a PWM generator that does not include a built in transistor.

Protection features include a built-in 19V PPTC Resettable fuse, potentiometer isolation and a Thermal Shield for EMI/EMC Isolation and thermal regulation.

The LD-AXXX Series is built on the Atrivatech M1 platform of compact modules and drivers.

Application Circuit:

Potentiometer Dimming



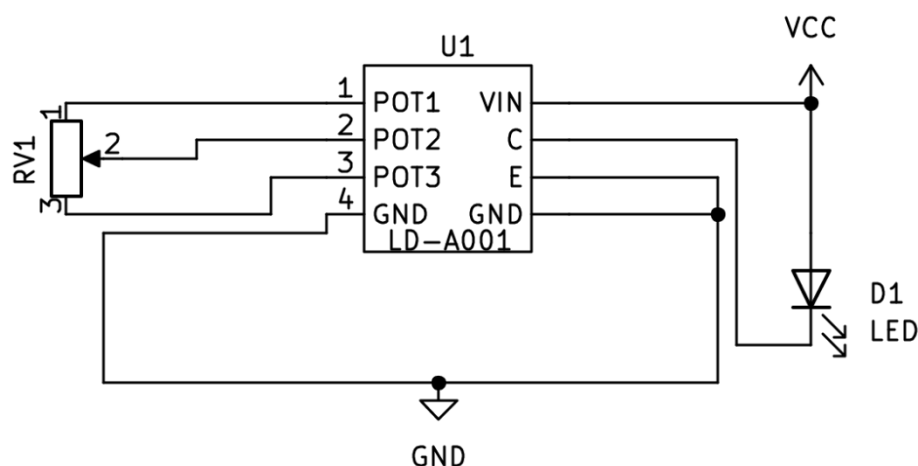
M1 Platform LD-A001

Features:

- 5V-18V Operation Voltage
- Built-in 40V Power Transistor
- Thermal Shield
- 14.1 x 12.7mm footprint
- Low-Power consumption
- Fixed Frequency
- PWM Dimming
- Potentiometer Control
- Dimming and Brightness control
- Easy Setup Circuitry
- -10-200°C Operating Range

Applications:

1. Smart Lighting
2. Street Lighting
3. Solar LED Lighting
4. Programmable Lighting
5. Other Applications



Pin Configuration



Pin Number	Pin Name	Description
1	POT 1	Potentiometer Pin 1
2	POT 2	Potentiometer Wiper Pin
3	POT 3	Potentiometer Pin 3
4	GND	Common Ground
5	GND	Common Ground
6	E	Power transistor Emitter
7	C	Power Transistor Collector
8	VCC	Voltage In

Best Practices:

1. Pi Filter at voltage input for ripple filtering
2. Optimal Transistor connection based on LED Type
3. Use of 1K-100K Potentiometer for dimming
4. Large ground plane below PCB For thermal considerations.

Ordering Information:

Part Number	Package	Packing Method	Marking	MOQ
LD-A001	M1	Tray / Individual	LD-A1	100 pcs

Additional Support:

Ordering Help: Atrivatech Sales sales@atrivatech.com +91 9363265339 / +91 044 6686 4444 No:136, Regus, Shyamala Towers, Chennai -93	Technical / Implementation / Design: Atrivatech Design Team atul@atrivatech.com +91 9363265339 No:136, Regus, Shyamala Towes, Chennai -93
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ADDITIONAL INFORMATION NOT SPECIFIED IN THIS DATASHEET CAN BE OBTAINED FROM support@atrivatech.com. ATRIVATECH IS READY TO MAKE YOUR REQUIREMENTS A REALITY

END TO END SUPPORT IS PROVIDED BY ATRIVATECH FOR ALL OUR PRODUCTS FOR 5 YEARS AFTER LAUNCH. TECHNICAL SUPPORT WILL BE PROVIDED TILL DATE OF PLANNED OBSOLENSENCE. FOR ANY QUERIES, PLEASE CONTACT OUR SALES TEAM. ALL COPYRIGHTS BELONG TO RESPECTIVE OWNERS. ANY DISCREPANCIES TO BE ADDRESSED TO ATRIVATECH P LTD, Chennai.

Changelog:

Change	Description	Date
-First Datasheet	Datasheet Created	29-November, 2025

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