

# CAT4139AEVB

## CAT4139 LED Driver Evaluation Board User's Manual



ON Semiconductor®

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### EVAL BOARD USER'S MANUAL

#### Introduction

This document describes the CAT4139AEVB evaluation board for the CAT4139 high efficiency step-up LED driver. The CAT4139 delivers an accurate constant current ideal for driving LEDs.

#### Schematic

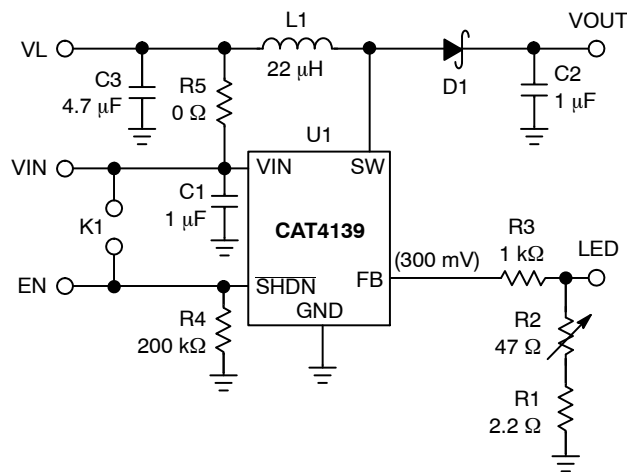


Figure 1. CAT4139AEVB Schematic

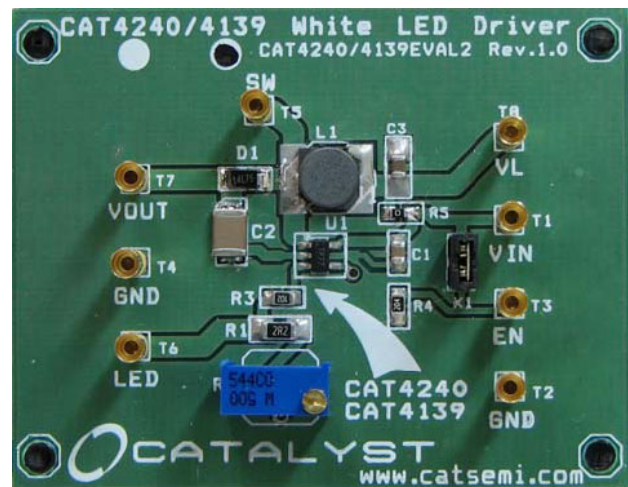


Figure 2. CAT4139AEVB Board

Table 1. BILL OF MATERIALS

| Name | Manufacturer                     | Description                                   | Part Number      | Units |
|------|----------------------------------|---|------------------|-------|
| U1   | ON Semiconductor, Catalyst Group | High Efficiency Boost LED Driver, SOT23-5     | CAT4139          | 1     |
| C1   | Taiyo Yuden                      | Ceramic Capacitor 1.0 μF/6.3 V X5R, Size 0805 | JMK212BJ105KK-T  | 1     |
| C2   | Taiyo Yuden                      | Ceramic Capacitor 1.0 μF/50 V X7R, Size 1210  | UMK325BJ105KH-T  | 1     |
| C3   | Taiyo Yuden                      | Ceramic Capacitor 4.7 μF/6.3 V X5R, Size 0805 | JMK212BJ475KD-T  | 1     |
| D1   | TSC                              | Schottky Diode 40 V/1 A, Sub SMA              | SS14L            | 1     |
| L1   | NIC                              | Inductor 22 μH/0.7 A                          | NPIS43D220MTRF   | 1     |
| R1   | Panasonic                        | SMT Resistor 2.2 Ω/250 mW, Size 1206          | ERJ-8GEYJ2R2V    | 1     |
| R2   | Vishay                           | Trim Pot 200 Ω/500 mW, Multi-Turn             | T93YA470KT20     | 1     |
| R3   | Yageo                            | SMT Resistor 1 kΩ/100 mW, Size 0603           | RC0603FR-071KL   | 1     |
| R4   | Yageo                            | SMT Resistor 200 kΩ/100 mW, Size 0603         | RC0603FR-07200KL | 1     |
| R5   | Yageo                            | SMT Resistor 0 Ω/125 mW, Size 0805            | RC0805JR-070RL   | 1     |
| K1   | Tyco                             | 2 Pin Header Connector 0.1" Pitch             | 640452-2         | 1     |

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