## CAT4139AEVB

## CAT4139 LED Driver Evaluation Board User's Manual

ON Semiconductor ${ }^{\circledR}$
http://onsemi.com
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 $1.0 \mu \mathrm{~F} / 6.3 \mathrm{~V}$ X5R, Size 0805 | JMK212BJ105KK-T | 1 |
| C2 | Taiyo Yuden | Ceramic Capacitor $1.0 \mu \mathrm{~F} / 50 \mathrm{~V}$ X7R, Size 1210 | UMK325BJ105KH-T | 1 |
| C3 | Taiyo Yuden | Ceramic Capacitor $4.7 \mu \mathrm{~F} / 6.3 \mathrm{~V}$ X5R, Size 0805 | JMK212BJ475KD-T | 1 |
| D1 | TSC | Schottky Diode 40 V/1 A, Sub SMA | SS14L | 1 |
| L1 | NIC | Inductor $22 \mu \mathrm{H} / 0.7 \mathrm{~A}$ | NPIS43D220MTRF | 1 |
| R1 | Panasonic | SMT Resistor 2.2 ת/250 mW, Size 1206 | ERJ-8GEYJ2R2V | 1 |
| R2 | Vishay | Trim Pot 200 Q/500 mW, Multi-Turn | T93YA470KT20 | 1 |
| R3 | Yageo | SMT Resistor $1 \mathrm{k} \Omega / 100 \mathrm{~mW}$, Size 0603 | RC0603FR-071KL | 1 |
| R4 | Yageo | SMT Resistor $200 \mathrm{k} \Omega / 100 \mathrm{~mW}$, Size 0603 | RC0603FR-07200KL | 1 |
| R5 | Yageo | SMT Resistor 0 Q/125 mW, Size 0805 | RC0805JR-070RL | 1 |
| K1 | Tyco | 2 Pin Header Connector 0.1" Pitch | 640452-2 | 1 |

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