CAT4139AEVB

CAT4139 LED Driver Evaluation Board User's Manual



ON Semiconductor®

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

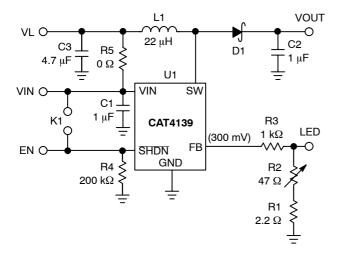


Figure 1. CAT4139AEVB Schematic

Table 1. BILL OF MATERIALS



Figure 2. CAT4139AEVB Board

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 $\mu\text{F/6.3}$ 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 k Ω /100 mW, Size 0603	RC0603FR-071KL	1
R4	Yageo	SMT Resistor 200 k Ω /100 mW, Size 0603	RC0603FR-07200KL	1
R5	Yageo	SMT Resistor 0 Ω /125 mW, Size 0805	RC0805JR-070RL	1
K1	Тусо	2 Pin Header Connector 0.1" Pitch	640452-2	1

CAT4139AEVB

ON Semiconductor and are registered trademarks of Semiconductor Components Industries, LLC (SCILLC). SCILLC reserves the right to make changes without further notice to any products herein. SCILLC makes no warranty, representation or guarantee regarding the suitability of its products for any particular purpose, nor does SCILLC assume any liability arising out of the application or use of any product or circuit, and specifically disclaims any and all liability, including without limitation special, consequential or incidental damages. "Typical" parameters which may be provided in SCILLC data sheets and/or specifications can and do vary in different applications and actual performance may vary over time. All operating parameters, including "Typicals" must be validated for each customer applications by customer's technical experts. SCILLC does not convey any license under its patent rights nor the rights of others. SCILLC products are not designed, intended, or authorized for use as components in systems intended for surgical implant into the body, or other application in which the BSCILLC product cale reater subation diverse personal injury or death may occur. Should Buyer purchase or use SCILLC products for any such unintended or unauthorized application, Buyer shall indemnify and hold SCILLC and its officers, employees, subsidiaries, and distributors harmless against all claims, costs, damages, and expenses, and reasonable attorney fees arising out of, directly or indirectly, any claim of personal injury or death associated with such unintended or unauthorized use persores that SCILLC was negligent regarding the design or manufacture of the part. SCILLC is an Equal Opportunit//Affirmative Action Employer. This literature is subject to all applicable copyright laws and is not for resale in any manner.

PUBLICATION ORDERING INFORMATION

LITERATURE FULFILLMENT:

Literature Distribution Center for ON Semiconductor P.O. Box 5163, Denver, Colorado 80217 USA Phone: 303-675-2175 or 800-344-3860 Toll Free USA/Canada Fax: 303-675-2176 or 800-344-3867 Toll Free USA/Canada Email: orderlit@onsemi.com N. American Technical Support: 800–282–9855 Toll Free USA/Canada Europe, Middle East and Africa Technical Support:

Phone: 421 33 790 2910 Japan Customer Focus Center Phone: 81-3-5773-3850 ON Semiconductor Website: www.onsemi.com

Order Literature: http://www.onsemi.com/orderlit

For additional information, please contact your local Sales Representative