

Product Overview

LV52133A: Programmable DC-DC Converter, ±5 V Dual-Output, Single Inductor

For complete documentation, see the data sheet.

LV52133A0XA and LV52133A5XA are dc-dc converters specifically designed for LCD panels. These DC-DC converters generate two different output voltages from a single inductor. Each of the output voltages are adjustable from ±4.1 V to ±5.7 V. LCD panel power modules using these dc-dc converters can be implemented within smaller board footprints, compared to converters that require dual inductors. The short circuit protection function, integrated for both positive and negative output pins, provides protection from continuous overcurrent when the output is shorted. This feature enhances the safety of the design. The extremely low standby current (0.3 µA typical) enables longer application operating time.

Features

- Dual-Outputs by Single-Inductor architecture
- Adjustable both output voltages by I2C (I2C disable at standby)
- Operating voltage range 2.5 V to 5.5 V
- High speed inverted charge pump technology
- Short Circuit Protection
- Standby current dissipation 0.3 µA

Benefits

- Reducing total cost and mounting area
- Available for many kind of panels
- Available for almost battery
- High-speed response
- Safety
- Long operation time

Applications

- Mobile LCD Panel Power Supply

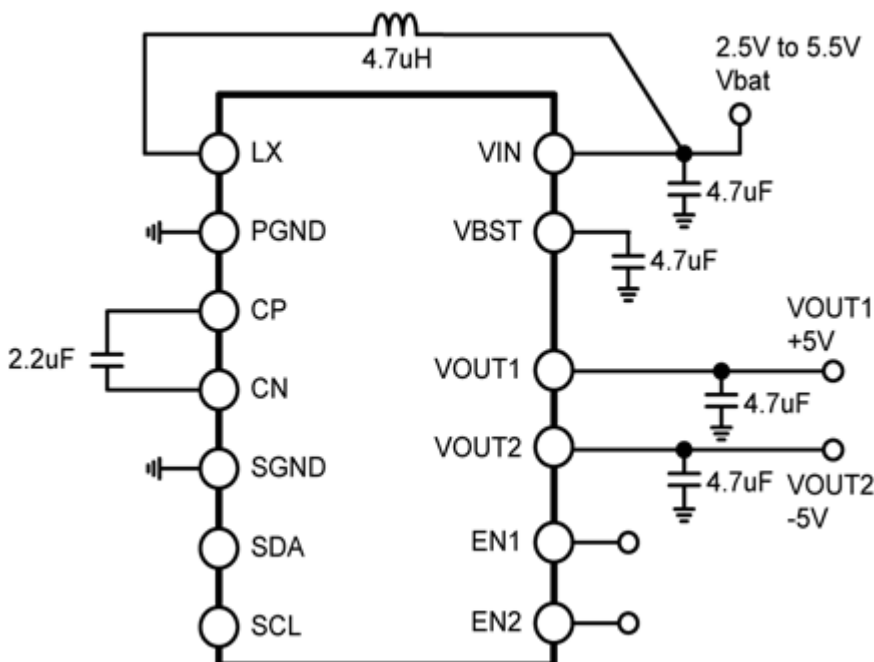
End Products

- Smart Phones
- Tablets

Part Electrical Specifications												
Product	Pricing (\$/Unit)	Compliance	Status	Topology	Control Mode	V _{CC} Min (V)	V _{CC} Max (V)	V _O Typ (V)	I _O Typ (A)	Efficiency (%)	f _{sw} Typ (kHz)	Package Type
LV52133A0XA-VH	0.64	Pb-free Halide free	Active	Step-Up	Current Mode	4.1	5.7	5	0.05	88	1850	WLCSP-15
LV52133A5XA-VH	0.64	Pb-free Halide free	Active	Step-Up	Current Mode	4.1	5.7	5.5	0.05	88	1850	WLCSP-15

Application Diagram

Typical Application Diagram



For more information please contact your local sales support at www.onsemi.com.

Created on: 6/4/2020