Primary-Side Regulated Flyback with 85-265VAC Input, high output energy storage for long hold up out

(ACTIVE) PMP8930.1

Description & Features | Technical Documents | Support & Community

View the Important Notice for TI Designs covering authorized use, intellectual property matters and disclaimers.

Description

The PMP8930 reference design uses the UCC28710 primary-side regulated flyback controller to generate a 20V output from a univeral AC input. a bulk capacitor with slow-charge-fast-discharge circuit is placed at flyback output to provide long hold up time for the following step-down DC-DC stages. TPS54335 is used as the controller and power stage for the main 4V or 12V output. The valley switching of the UCC28710 allows this low-cost design to achieve a maximum load efficiency of 83%; no load losses are less than 70mW.

Bottom of Board | Regulated Flyback Converter Reference Design

TI Devices (4)

Get more information on the TI products in this reference design.

Part Number	Name	Product Family
LM2903	Dual Differential Comparator	Amplifiers and Linear
LM317	3/4 Pin 1.5A Adjustable Positive Voltage Regulator	Linear Regulator (LDO)
TPS54335	4.5V to 28V Input, 3A, Synchronous, Step-Down Converter with Eco-mode	Converter (Integrated Switch)

Show More

Bill of Materials

Find the complete list of components in this reference design.

Download BOM

CAD/CAE Symbols

Part #	Package | Pins	CAD File (.bxl)	STEP Model (.stp)
LM2903	SOIC (D) | 8	Download	Download
	VSSOP (DGK) | 8	Download	Download
	PDIP (P) | 8	Download	Download
	SOP (PS) | 8	Download	-
	TSSOP (PW) | 8	Download	-
LM317	TO-220 (KC) | 3	Download	-
	TO-220 (KCS) | 3	Download	-
	(KTE) | 3	Download	-
	TO-263 (KTT) | 3	Download	Download
	SOT (DCY) | 4	Download	Download

Texas Instruments and Accelerated Designs Inc. have collaborated together to provide TI customers with schematic symbols and PCB layout footprints for TI products.

Step 1: Download and install the Ultra Librarian software ZIP: 62MB

Step 2: Download the Symbol and Footprint .bxl file.

- read more -

Technical Documents

User Guides (1)

Title	Abstract	Type	Size (KB)	Date	Views
PMP8930.1 Test Results		PDF	1563	12 Sep 2013	58

More Literature (2)

Title	Abstract	Type	Size (KB)	Date	Views
PMP8930.1 BOM		PDF	120	12 Sep 2013	61
PMP8930.1 Schematic		PDF	133	12 Sep 2013	159

Related Tools & Software

Software (1)

PMP8930.1 Gerber
(ZIP, 233 KB) 32 views, 12 Sep 2013

Support & Community

TI E2E™ Community

TI E2E™ Community

As a member of my.TI you can join the TI E2E™ Community where you can ask questions, share ideas and collaborate with fellow engineers and TI experts

Contents are provided "AS IS" by the respective TI and Community contributors and do not constitute TI specifications. See Terms of Use.

Engage in the Community

- Amplifiers
- Broadband RF/IF & Digital Radio
- Clocks & Timers
- Data Converters
- DLP® & MEMS
- Interface
- Logic
- Power Management
- Wireless Connectivity

Wikis

Visit the TI Wiki

Videos

Power Tip 58: Power supply grounding; which camp are you in?

In this power tip video senior applications engineer, Robert Kollman, discusses different methods for grounding power supply.

Posted: 27-Oct-2013
Duration: 3:30
Views: 94
Tags: power tip, power management, power reference designs, powerlab, power management solutions

Search over 1,000 Power Management Reference Designs

Related Videos

Power Tip 58: Power supply grounding; which camp are you in?

Power Tip 56: Estimate PWB interconnect inductance

Other Support

- TI E2E Community
- Contact Technical Support

Your History

Products You Recently Viewed

- PMP8930.2
- PMP8930.3
- PMP8930.4
- PMP8930.5
- PMP8966

TI is a global semiconductor design and manufacturing company. Innovate with 100,000+ analog ICs and embedded processors, along with software, tools and the industry's largest sales/support staff.

© Copyright 1995-2013 Texas Instruments Incorporated. All rights reserved.
Trademarks | Privacy Policy | Terms of Use