

DESCRIPTION

The Texas Instruments DEM-TO263LDO demonstration module (DEM) helps designers evaluate the operation and performance of Texas Instrument's low-dropout regulators (LDOs). This module is compatible with most positive output LDOs offered in the 5-lead TO220 (KC) and TO263 (KTT) packages. (Note that the TO263 package is also known as DDPAK.)

CIRCUIT

The schematic in Figure 1 illustrates all the possible connections available on this DEM. Depending on the LDO being evaluated, different components can be omitted. Each model may only use some of the components. The schematics in Figure 2 illustrate the connections required to evaluate the two most-common LDO pinouts in the TO220 and TO263 packages.

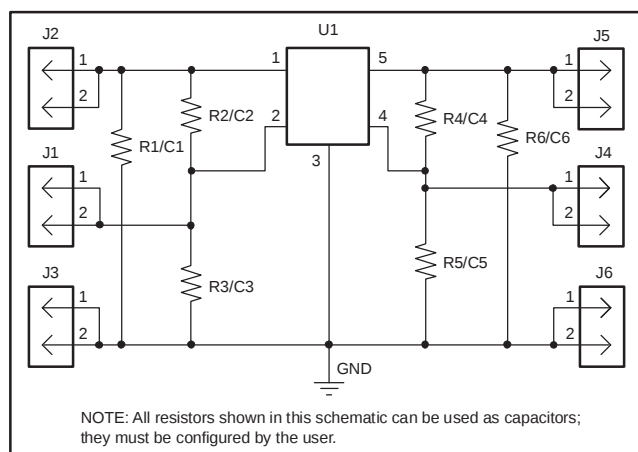


Figure 1. Circuit Schematic

COMPONENTS

This DEM is specifically designed to be assembled using surface-mount devices with footprints ranging from 0603 to 1210. Additional holes have been provided to accommodate leaded components. When selecting components, refer to the product datasheet for specific guidelines.

BOARD LAYOUT

This DEM is a two-layer printed circuit board (PCB). The LDO is grounded through pin 3 to the top ground plane. The bottom layer of the PCB also provides extra pads where additional surface-mount components can be added in parallel to the top-side components. Figure 3 shows the top assembly layer for the PCB.

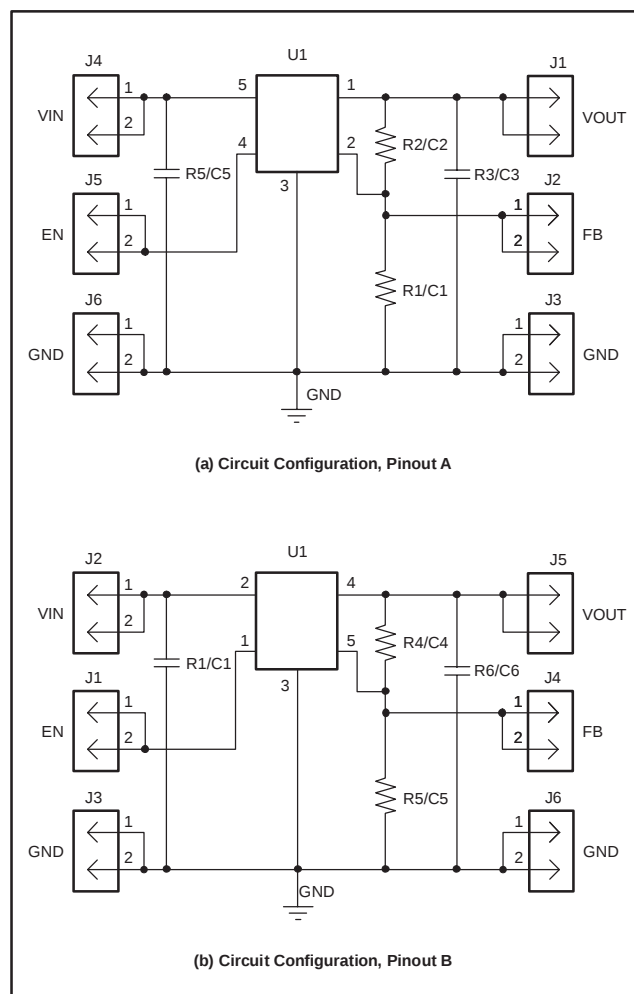


Figure 2. Example Board Configurations for Evaluating LDOs in the TO220 or TO263 packages.

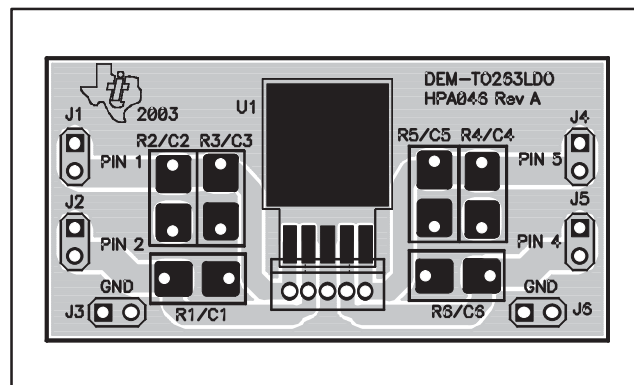


Figure 3. PCB Layout – Top Assembly



Please be aware that an important notice concerning availability, standard warranty, and use in critical applications of Texas Instruments semiconductor products and disclaimers thereto appears at the end of this document.

All trademarks are the property of their respective owners.

IMPORTANT NOTICE

Texas Instruments Incorporated and its subsidiaries (TI) reserve the right to make corrections, modifications, enhancements, improvements, and other changes to its products and services at any time and to discontinue any product or service without notice. Customers should obtain the latest relevant information before placing orders and should verify that such information is current and complete. All products are sold subject to TI's terms and conditions of sale supplied at the time of order acknowledgment.

TI warrants performance of its hardware products to the specifications applicable at the time of sale in accordance with TI's standard warranty. Testing and other quality control techniques are used to the extent TI deems necessary to support this warranty. Except where mandated by government requirements, testing of all parameters of each product is not necessarily performed.

TI assumes no liability for applications assistance or customer product design. Customers are responsible for their products and applications using TI components. To minimize the risks associated with customer products and applications, customers should provide adequate design and operating safeguards.

TI does not warrant or represent that any license, either express or implied, is granted under any TI patent right, copyright, mask work right, or other TI intellectual property right relating to any combination, machine, or process in which TI products or services are used. Information published by TI regarding third-party products or services does not constitute a license from TI to use such products or services or a warranty or endorsement thereof. Use of such information may require a license from a third party under the patents or other intellectual property of the third party, or a license from TI under the patents or other intellectual property of TI.

Reproduction of information in TI data books or data sheets is permissible only if reproduction is without alteration and is accompanied by all associated warranties, conditions, limitations, and notices. Reproduction of this information with alteration is an unfair and deceptive business practice. TI is not responsible or liable for such altered documentation.

Resale of TI products or services with statements different from or beyond the parameters stated by TI for that product or service voids all express and any implied warranties for the associated TI product or service and is an unfair and deceptive business practice. TI is not responsible or liable for any such statements.

Following are URLs where you can obtain information on other Texas Instruments products & application solutions:

Products		Applications	
Amplifiers	amplifier.ti.com	Audio	www.ti.com/audio
Data Converters	dataconverter.ti.com	Automotive	www.ti.com/automotive
DSP	dsp.ti.com	Broadband	www.ti.com/broadband
Interface	interface.ti.com	Digital Control	www.ti.com/digitalcontrol
Logic	logic.ti.com	Military	www.ti.com/military
Power Mgmt	power.ti.com	Optical Networking	www.ti.com/opticalnetwork
Microcontrollers	microcontroller.ti.com	Security	www.ti.com/security
		Telephony	www.ti.com/telephony
		Video & Imaging	www.ti.com/video
		Wireless	www.ti.com/wireless

Mailing Address: Texas Instruments
Post Office Box 655303 Dallas, Texas 75265