

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.

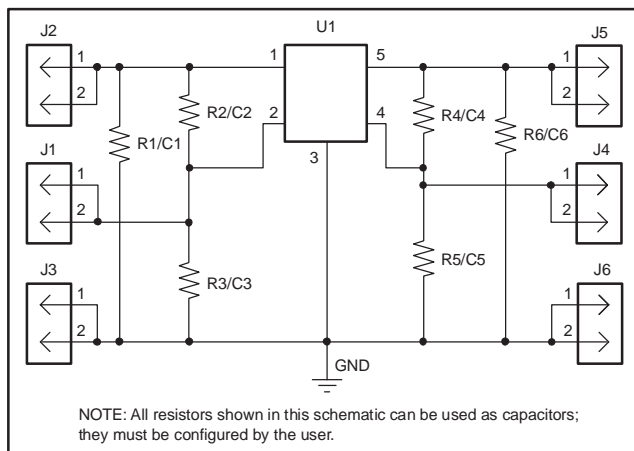


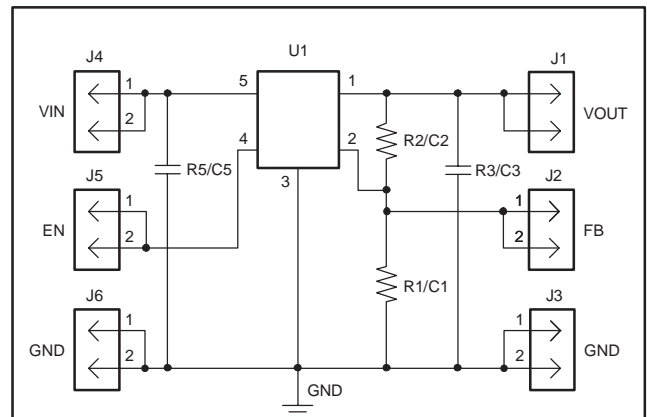
Figure 1. Circuit Schematic

COMPONENTS

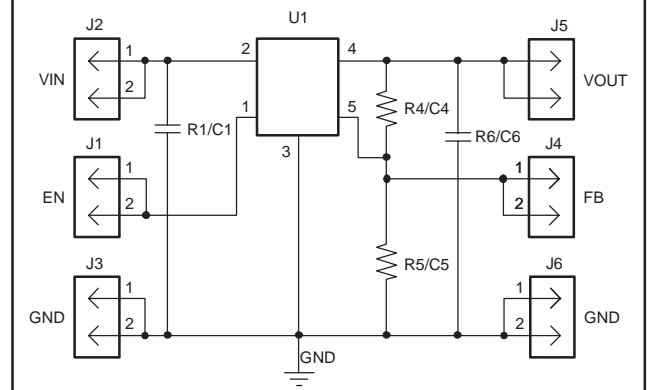
This DEM is specifically designed to be assembled using surface-mount devices with footprints ranging from 0603 to 1210. Additional holes have been provided to accommodate leaded components. When selecting components, refer to the product datasheet for specific guidelines.

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.



(a) Circuit Configuration, Pinout A



(b) Circuit Configuration, Pinout B

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

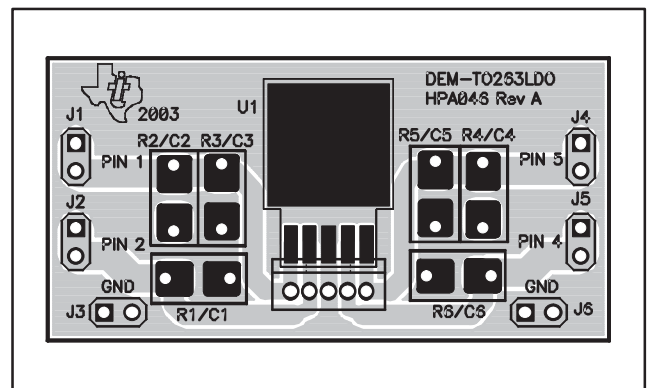


Figure 3. PCB Layout – Top Assembly



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