

LM2700 Evaluation Board

National Semiconductor
 Application Note 1308
 Clinton Jensen
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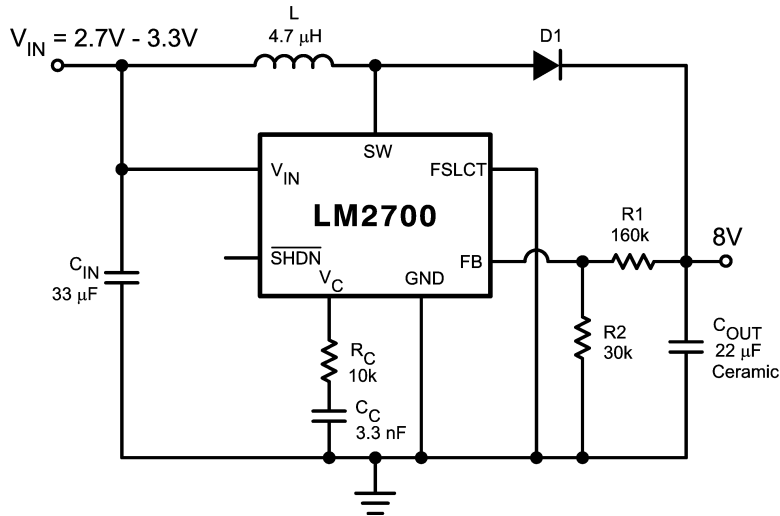


Introduction

The LM2700 is a high current step-up DC/DC converter which can be used for TFT-LCD applications. The evaluation board is set up for 8V output from a single Li-Ion battery input. The switching frequency can be selected using the jumper on the FSLCT pin. The evaluation board is optimized

for 600 kHz operation but will remain stable for 1.25 MHz operation if desired. The LM2700 comes in both the TSSOP-14 and the LLP-14 packages. The TSSOP package was chosen for the evaluation board due to ease of use and replacement.

Schematic



20092701

Bill of Materials

| Designator | Component | Manufacturer |
|------------------|---|------------------------|
| U1 | LM2700MT-ADJ, TSSOP-14 | National Semiconductor |
| L | 4.7 μH, DO3316P-472 | Coilcraft |
| C _{IN1} | 33 μF, 10V Tantalum 195D336X9010Z2T | Vishay |
| C _{IN2} | 1 μF, Ceramic VJ0805Y105KXA | Vishay |
| C _{OUT} | 22 μF Ceramic EMK325BJ226MM | Taiyo-Yuden |
| D1 | 20V, 3A Schottky MBRM320 | ON Semiconductor |
| R _C | 10k, 1206 Case, CRCW12061002F | Vishay |
| C _C | 3.3 nF, 1206 Case, VJ1206Y332KXA | Vishay |
| R ₁ | 162k, 1206 Case, CRCW12061623F | Vishay |
| R ₂ | 30.1k, 1206 Case, CRCW12063012F | Vishay |
| C _{C2} | Blank, 1206 Size Pad from V _C to GND | |

Notes

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