

Objective

For several years, the incorporation of LCDs becomes normal in not only value added products but also cellular phones and portable game machines. With the spread of the LCDs in inexpensive products, a low priced power supply incorporating LCDs will be needed to provide. Torex suggests the solution by configuring a multivoltage power supply requiring only one DC/DC converter IC.

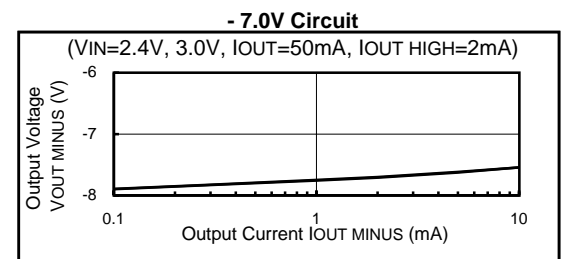
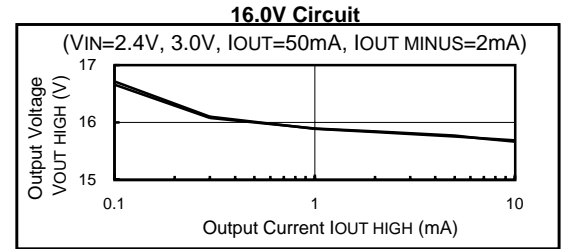
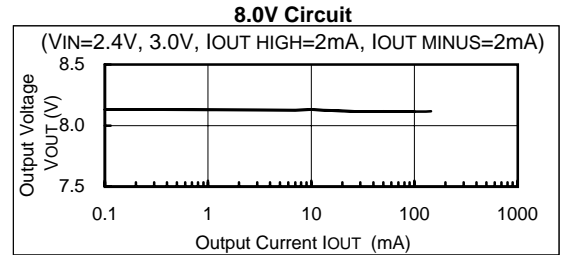
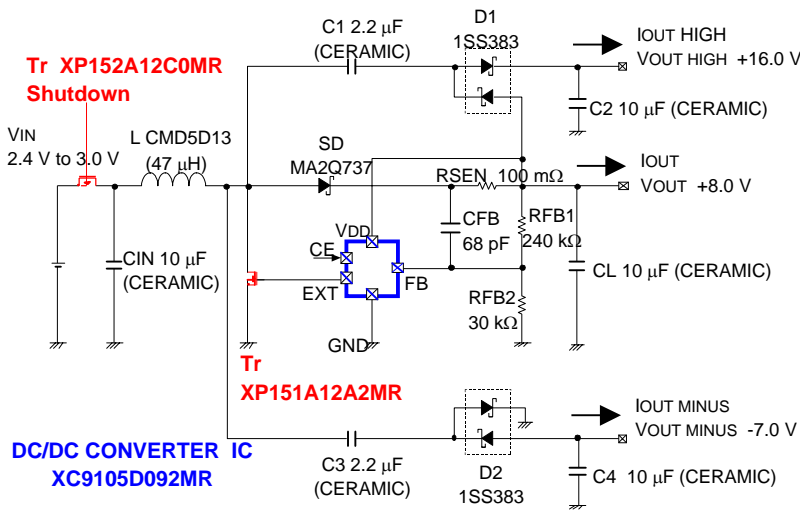
Description

The main power supply (producing a high current at a low voltage) is constructed using an ordinary DC/DC converter circuit. Subsidiary power supplies (producing a small current at a high voltage and a small current at a negative voltage) are obtained by rectifying the switching waveform of the main power supply regarded as an alternating current. In doing so, voltage-doubling rectification is performed or a negative voltage is produced. (Diode charge pump system)

Circuit Examples

① Power supply for LCD modules

Output + 8.0 V, 50 mA Input 2.4 V - 3.0 V
 +16.0 V, 2 mA
 - 7.0 V, 2 mA



② Main power supply & power supply for LCD circuits

Output +3.3 V, 50 mA Input 2.4 V - 3.0 V
 +9.0 V, 2 mA
 -6.0 V, 2 mA

