

## Fairchild Reference Design

The following reference design supports inclusion of FL7701 in design of LED illumination. It should be used in conjunction with the FL7701 datasheet as well as Fairchild's application notes and technical support team. Please visit Fairchild's website at <http://www.fairchildsemi.com>.

| Application      | Fairchild Device | Input Voltage Range    | Rated Output Power | Output Voltage (Rated Current) |
|------------------|------------------|------------------------|--------------------|--------------------------------|
| LED Illumination | FL7701           | 187-264V <sub>AC</sub> | 7.55W              | 31.56V (0.26A)                 |

### Key Features

- Digital Implemented Active PFC Function
- Built in HV Supplying Circuit: Self Biasing
- AOCP Function with auto restart Mode
- Cycle-by-Cycle Current Limit
- Current Sense Pin Open Protection
- Low Operating Current: 0.85mA (Typical)
- Programmable Oscillation Frequency
- Programmable LED Current
- Analog Dimming Function

# 1. Schematics

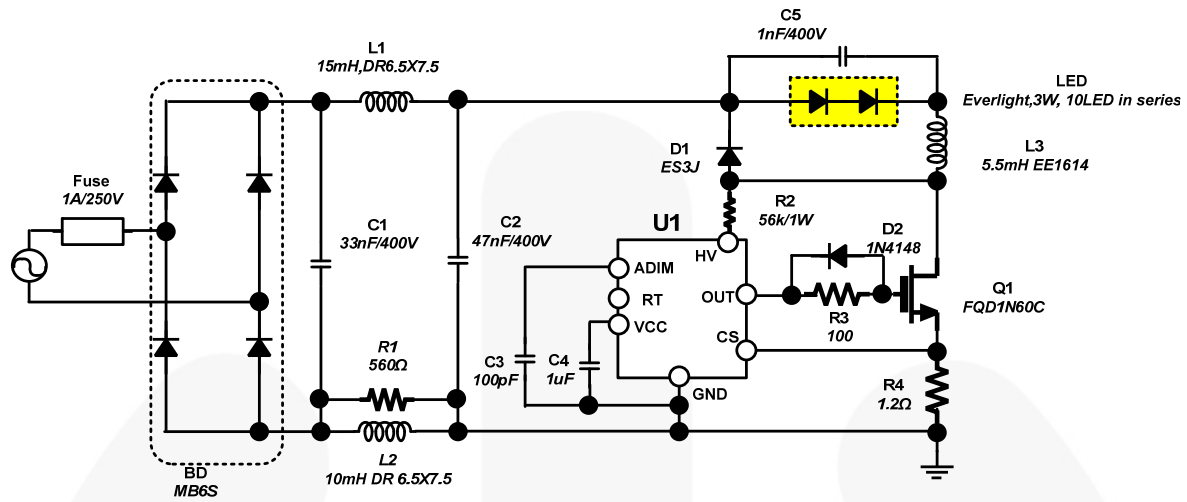


Figure 1. Schematic

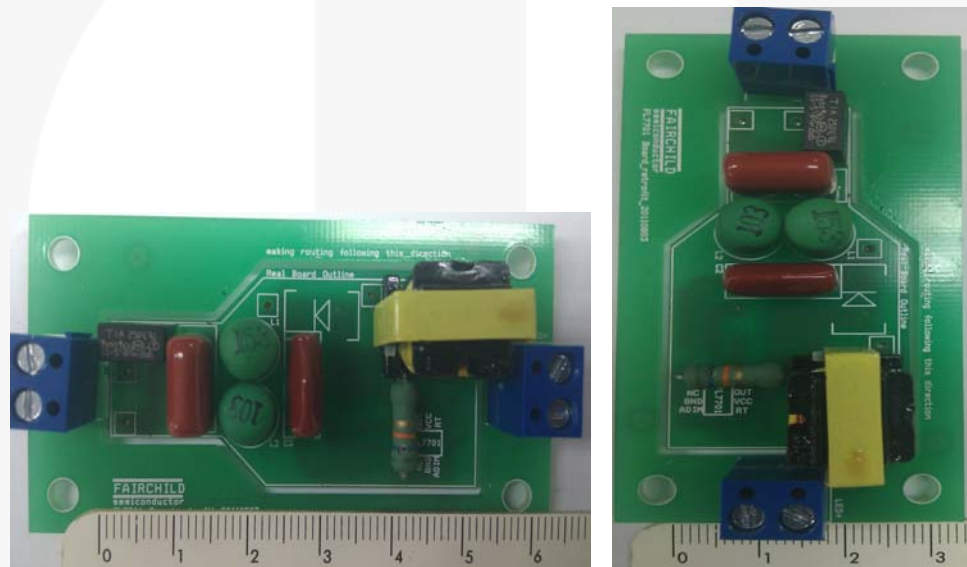


Figure 2. Real Board Size with Input / Output Connectors

## 2. Performance

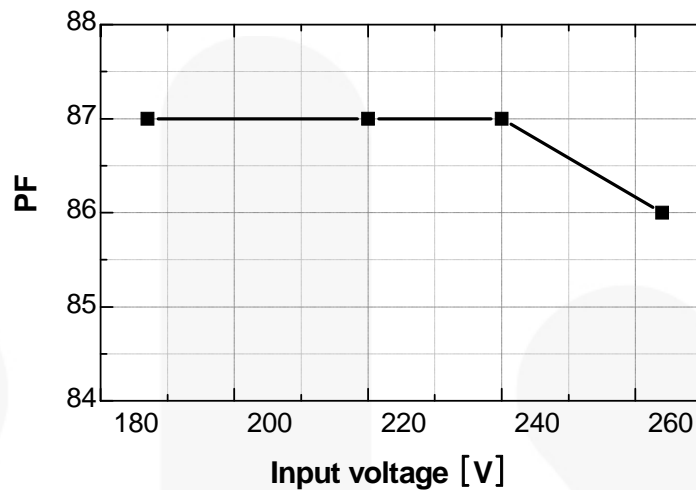


Figure 3. Efficiency vs. Input Voltage

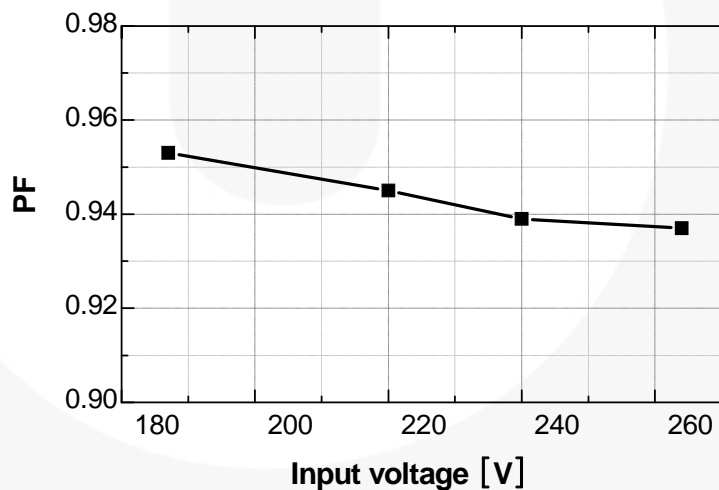


Figure 4. Power Factor vs. Input Voltage

### 3. Related Resources

*FL7701 — Smart LED Lamp Driver IC with PFC Function*

*<http://www.fairchildsemi.com/support/referencedesign>*

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