



STEVAL-ILL027V1

18 W single stage offline LED driver demonstration board
based on the L6562A

Data brief

Features

- Input voltage 120 VAC +/-10%
- Provides 18 W constant power to HBLED
- Able to drive 14 to 20 HBLED in series
- Soft switching
- LED open circuit protection
- LED short circuit protection
- Power factor > 0.8
- Efficiency > 87%
- RoHS compliant

Description

This demonstration board implements a 18 W non-isolated soft-switched high power factor offline LED driver. The buck-boost converter is chosen for this application due to its simplicity and low cost. The converter operates with constant peak current for constant power control and in transition mode (boundary mode between CCM and DCM) to achieve soft switching.

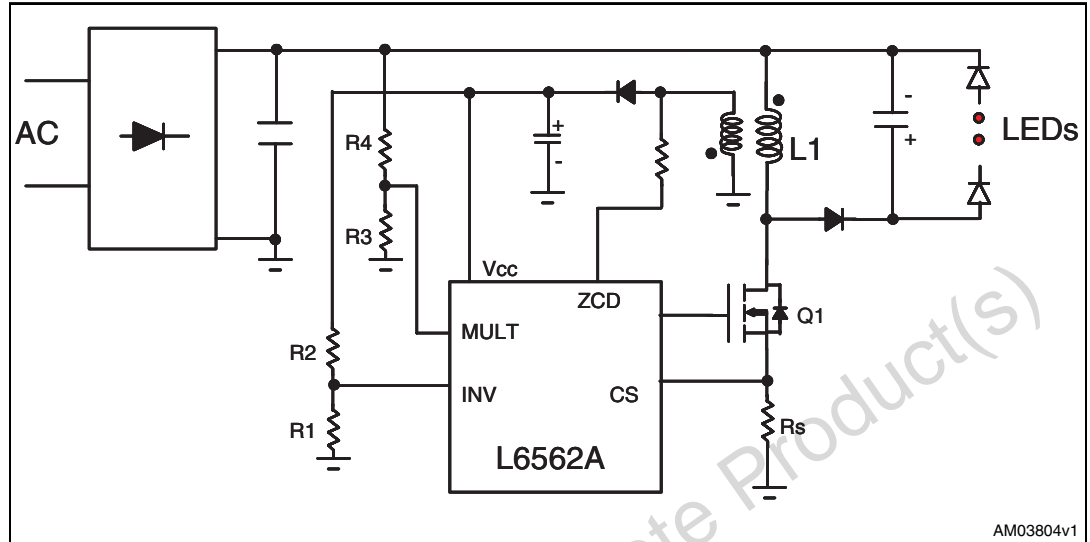
High power factor is achieved by reshaping the peak current nearby the zero crossing of input AC line.



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1 Circuit schematic

Figure 1. Schematic diagram



Obsolete Product(s) - Obsolete Product(s)
Obsolete Product(s) - Obsolete Product(s)

2 Revision history

Table 1. Document revision history

| Date | Revision | Changes |
|-------------|----------|------------------|
| 18-May-2009 | 1 | Initial release. |

Obsolete Product(s) - Obsolete Product(s)
Obsolete Product(s) - Obsolete Product(s)

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