

Highly Efficient Dimmable LED Bulb Driver System Utilizing ICL8001G

LED based replacements are the most promising candidates handling world-wide legislations banning incandescent light bulbs. Current available driver designs do not yet achieve cost effective and energy efficient solutions to gain consumer acceptance. The Infineon LED driver solution utilizing ICL8001G addresses exactly these parameters and sets the new benchmark.

ICL8001G is a quasi-resonant controller optimized for dimmable off-line LED light bulbs. Precise PWM generation supports phase-cut dimming and power factor correction. Intelligent control allows excellent system efficiencies and provides superb light quality. ICL8001G enables simple and fast designs for smallest form factor in compliance with regulatory standards. Multiple safety functions ensure a full system protection in failure situations.

Applications:

- 100W / 60W / 40W incandescent bulb replacement or lamp retrofit

System Highlights:

- Leading edge performance
- Best-in-Class BOM cost
- Comprehensive feature set
- Outperforms worldwide regulatory requirements

Key Features:

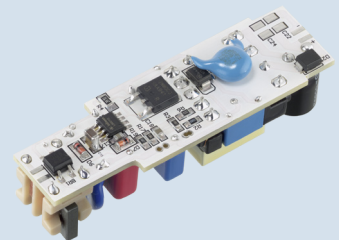
- Single stage, primary control with PFC and dimming function
- Highly efficient - up to 90%
- Significant BOM cost savings - approx. 30% compared to existing solutions
- Additional energy savings supported within a wide phase-cut dimming range
- Superb light quality - intelligent regulation for flicker free operation
- Unmatched power quality - power factor exceeding 98%
- Isolated driver output for optimized thermal management
- Minimized external component count enables smallest form factor and maximum reliability

www.infineon.com/LED-Bulb

LED Bulb and Driver Board

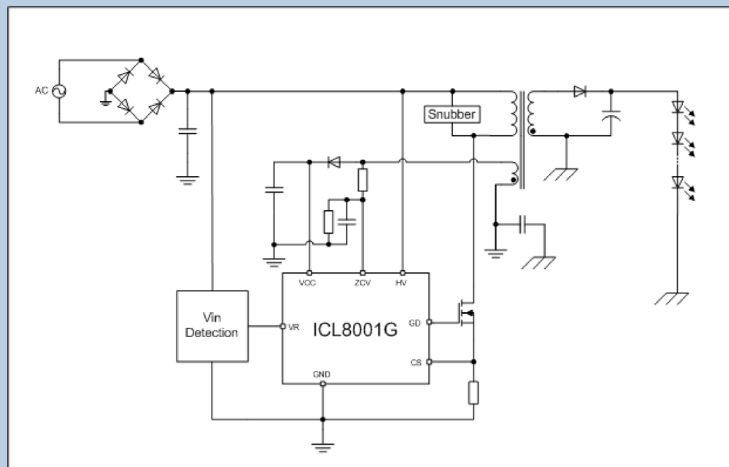


60W Equivalent Driver Board
Dimensions: 20mm x 70mm



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Application Circuit Diagram:



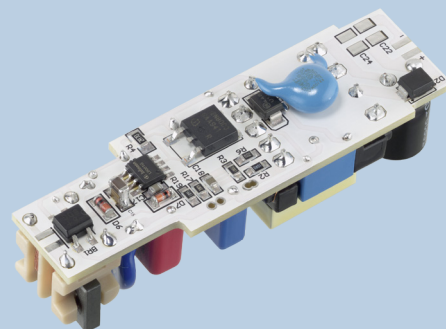
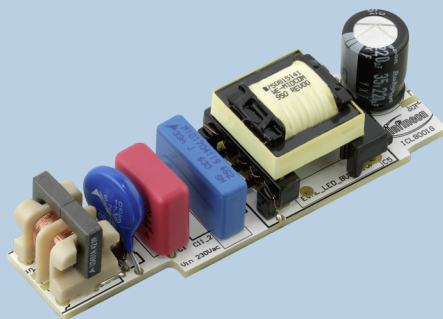
Product Information:

- Package: PG-DSO-8
- Part No.: ICL8001G
- Order No.: SP00773086



Evaluation Board:

- Please contact your local Infineon Office
- www.infineon.com/LED-Bulb



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