

Highly Efficient Off-line LED Driver

Primary Control System Utilizing ICL5x-Series (non-dimmable)

LED based lighting sources are the best suited candidates to replace today's inefficient solutions e.g. incandescent bulbs. Current LED driver design and system cost are still a challenge to gain major consumer acceptance. Infineon offers benchmark solutions and represent an outstanding choice to overcome this hurdle.

ICL5x-series for non-dimming applications deploys fixed frequency operation mode with integrated power factor control for off-line LED lighting applications. Applied innovative primary control techniques result in excellent system efficiencies with significant reduced external component count. The integrated CoolMOS™ simplifies designs and enables compact applications for integration in standard screw-in sockets and LED luminaires.

Less Energy – More Light @ Reduced System Cost

Infineon ICL5x-series

Applications

- Lamp retrofits (e.g. incandescent bulb, GU10, PAR, tube replacements)
- LED luminaires

System Highlights

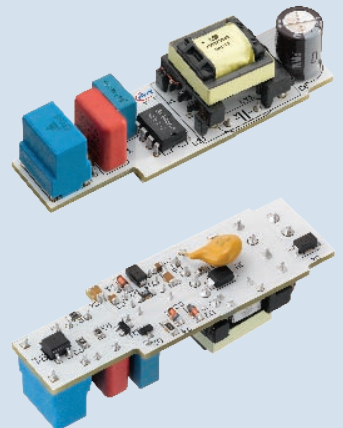
- Single stage, primary control with PFC, flyback, fixed frequency operation
- Highly efficient - system efficiency up to 88%, power factor > 98%
- Dimmer safe operation
- Comprehensive feature set
- Outperforms worldwide regulatory requirements

Key Features

- Minimized external component count enables smallest form factor and maximum reliability
- Isolated driver output for efficient thermal management
- Multiple safety functions for full system protection in failure situations
- ICL5x-series enables simple and fast designs at lowest cost
- Ready to meet future more stringent requirements

LED Driver Board
non-dimmable

Demo Board ICL56021J
(60W equ. /230V AC)



Evaluation Board

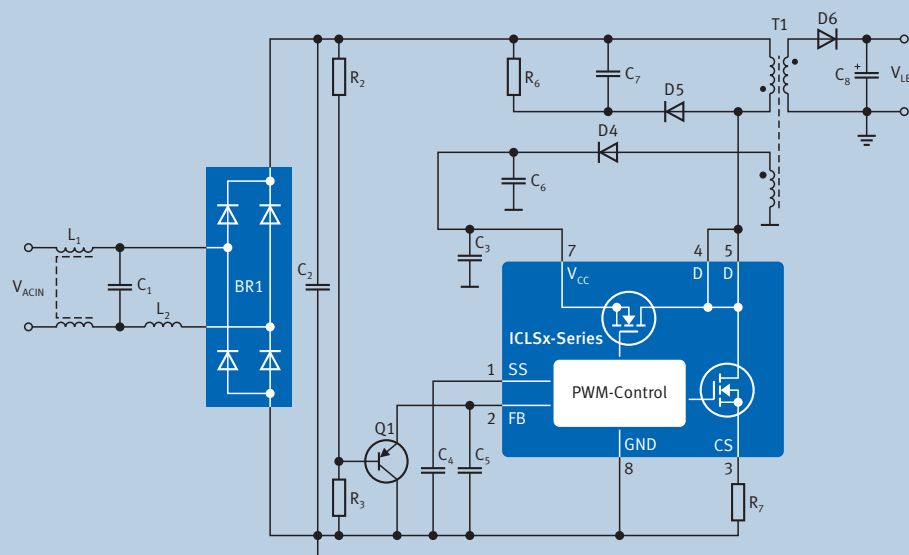
- Please contact your local Infineon office
- Documentation:
www.infineon.com/LED-Bulb



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Application Circuit Diagram



Product line-up ICLSx-Series

Partnumber	V_{DS} [V]	R_{RDSON} [Ω]	Nominal Power ($\pm 15\%$)		Package	Order. No.
			$230V_{VACIN}$	$90V_{VACIN}$		
ICLS6021J	650	6.45	12W	5W	PG-DIP-8	SP000869140
ICLS6022J	650	4.70	17W	9W	PG-DIP-8	SP000877356
ICLS6022G	650	4.70	17W	9W	PG-DSO-12	SP000897654
ICLS6023J	650	1.70	26W	15W	PG-DIP-8	SP000890998
ICLS8023Z	800	2.26	24W	12W	PG-DIP-7	SP000891000

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Infineon ICLSx-series

Published by
Infineon Technologies AG
85579 Neubiberg, Germany

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Order Number: B121-H9605-X-X-7600
Date: 05 / 2011

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