Product Brief

ICB2FL03G

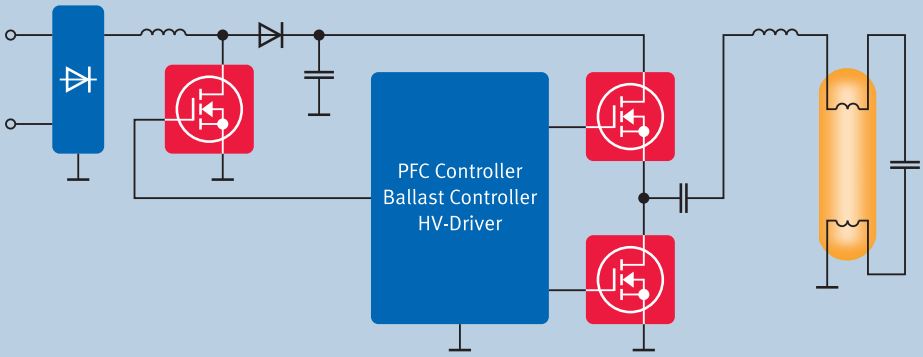
Smart Ballast Controller in Slim SO-16 Package

Infineon's new Smart Ballast Controller ICB2FL03G in SO-16 offers very similar performance and feature set compared to the well established SO-19 product ICB2FL01G.

- Integration of all lamp start, run and protection features.
- Employment of Digital Mixed Signal Power Control, enabling speedy and cost effective ballast designs with the minimum of external components.
- Reliable and robust high voltage isolation using Infineon's proprietary Coreless Transformer Technology (CLT).

	ICB2FL03G	ICB2FL01G
Package	SO-16 small body	SO-19 wide body
Driver capability	650V	900V
Lamp connection	single and series	single, series and parallel

Typical Application



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Product Highlights

- Critical Conduction Mode PFC with overcurrent and overvoltage protection and internal loop compensation
- Very low THD and harmonic distortion
- Excellent ignition control for an operation close to the magnetic saturation
- Adjustable end of life detection and detection of capacitve mode operation
- High reliability and minimized spread due to digital and optimized analog control functions

Typical Applications

- Linear Fluorescent Lamp Ballasts for T5 and T8 lamps
- Compact Fluorescent Lamp Ballasts
- Emergency Lighting Ballasts
- Multi-lamp Ballasts in series connection and multi-power ballasts

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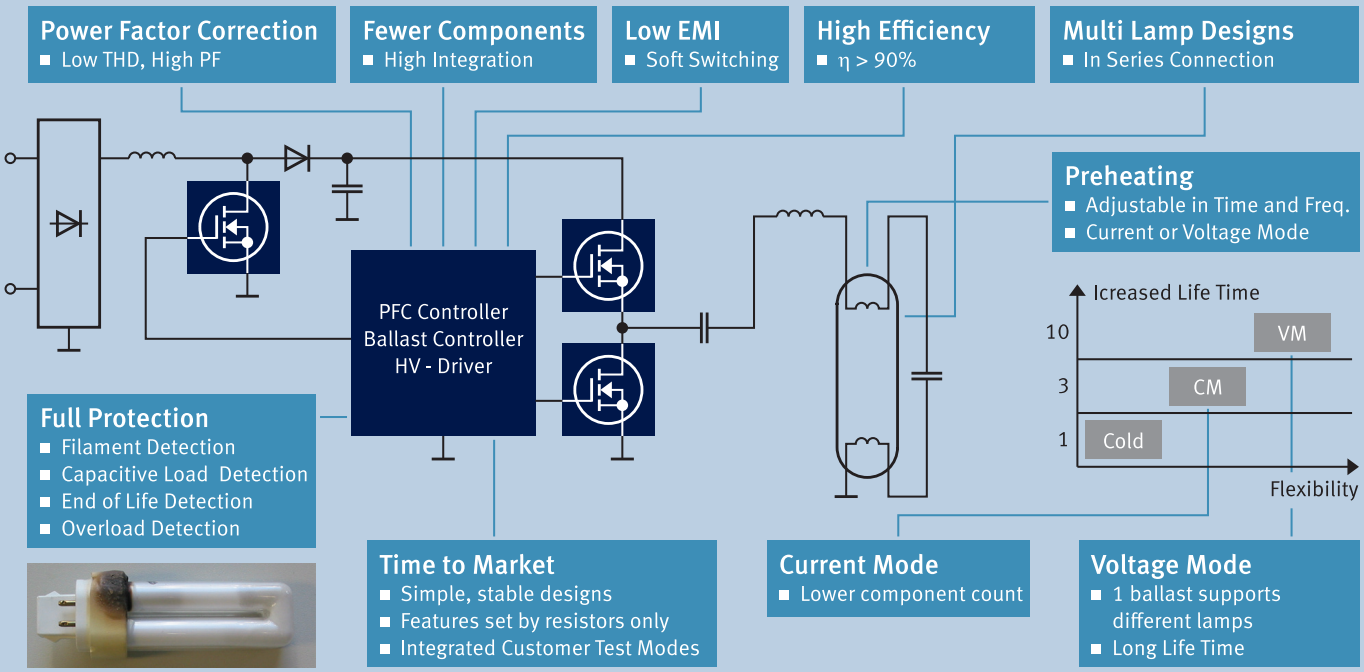
Features & Benefits

Feature	Benefit
Able to handle lamp chokes with high saturation behavior	Optimized lamp choke size and reduced BOM costs
Special in-circuit test mode for faster test time	Dramatically reduced time for key tests such as end of life detection, preheat/ignition timeout and pre run operation modes
Excellent dynamic PFC performance enables very low THD across wide load ranges	Suitable for dimming and multi-power ballasts
Separate adjustable levels of lamp overload and rectifier effect detection	Enables ballasts compatibility with a wider range of lamp types
Adjustment of the preheat time	Flexible support of both current and voltage mode preheating
No high voltage capacitor required for detection of lamp removal (capacitive mode operation)	Reduced BOM costs
Intelligent discrimination between surge & half bridge over current events	Automatic restart by surge and inverter over current events
Skipped preheating when line interruption ‹500ms	Meets standards for emergency lighting (according to DIN VDE 0108)
Self adapting dead time adjustment of the half bridge driver	Eases design of multi-power ballasts and reduces EMI
One single restart at fault mode	Enhanced reliability of the ballast

Simplified Schematic



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