

800V CoolMOS™ CE

High Performance for Lighting Applications

800V CoolMOS™ CE is Infineon's high performance device family offering 800 Volts break down voltage. Designed according to the revolutionary SuperJunction (SJ) principle, it provides all benefits of a fast switching SJ MOSFET while not sacrificing ease of use.

The CE targets Consumer Electronics applications and Lighting and the new 800V selection series specifically aims at LED applications. With this specific CoolMOS™ CE family, Infineon combines long experience as the leading SJ MOSFET supplier with Best-in-Class innovation.

The low $R_{DS(on)}$ enables low conduction and switching losses. In addition it makes switching applications more efficient, more compact, lighter and cooler.

In the growing LED market 800V CoolMOS™ CE offers an outstanding price/performance ratio providing a competitive edge while being optimized for ease of use and efficiency in such applications.

Key Features

- Low specific on-state resistance ($R_{DS(on)} * A$)
- Very low energy storage in output capacitance (E_{oss}) @ 400V
- Low gate charge (Q_g)
- Field-proven CoolMOS™ quality
- CoolMOS™ technology has been manufactured by Infineon since 1998

Key Benefits

- High efficiency and power density
- Outstanding price/performance
- High reliability
- Ease of use

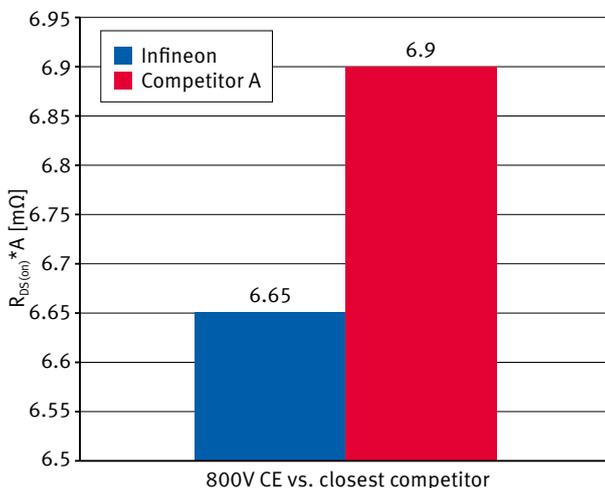
Applications

- LED lighting

Topologies

- (QR) Flyback

800V CoolMOS™ CE lowest $R_{DS(on)} * A$ for lighting applications in the market



Infineon's new CoolMOS™ price/performance parts have a 4% lower $R_{DS(on)} * A$ than the closest competitor.



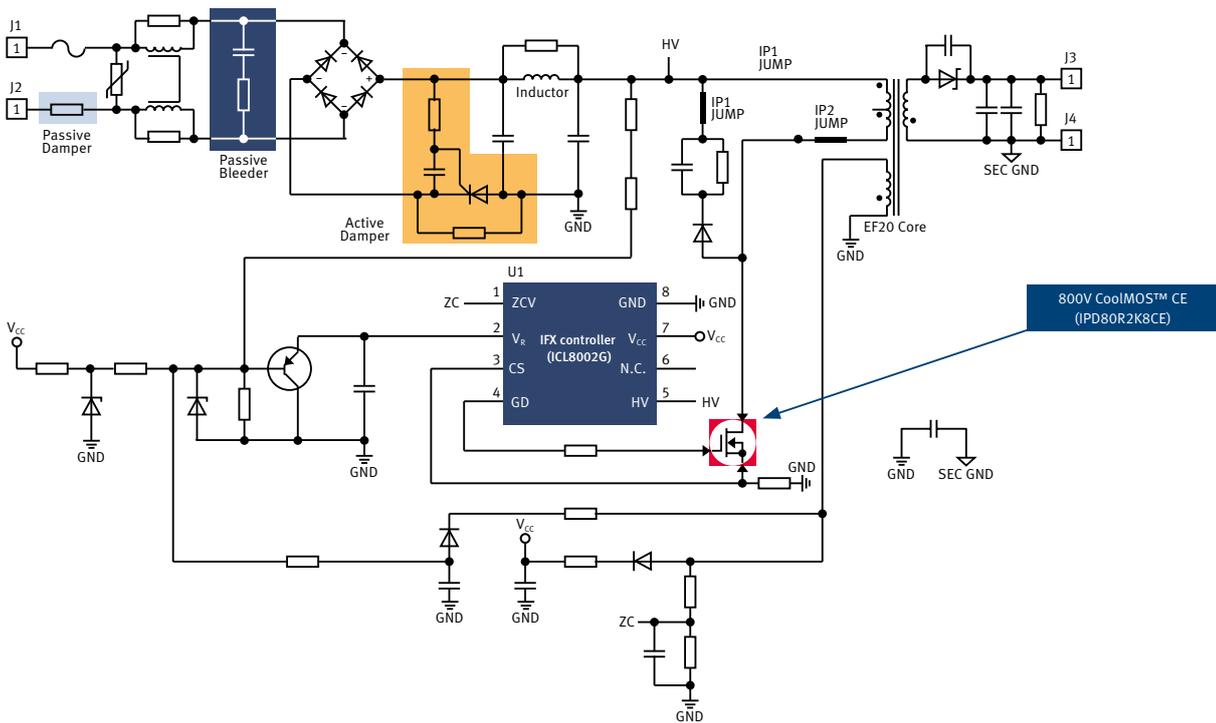
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Infinion’s dimmable LED bulb based on ICL8002G offers a highly integrated solution requiring few peripheral devices. The combination with the newest generation of 800V CoolMOS™ CE,

enables a wide power range of high efficiency offline dimmable LED lamp drivers.

LED lighting circuit configuration example including 800V CoolMOS™ CE (IPD80R2K8CE) and IFX controller (ICL8002G)



Product Portfolio

$R_{DS(on)}$ [mΩ]	DPAK (TO-252)	IPAK (TO-251)
2800	IPD80R2K8CE	IPU80R2K8CE
1400	IPD80R1K4CE	IPU80R1K4CE
1000	IPD80R1K0CE	IPU80R1K0CE

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