



产品简介

BCR601

60 V 线性 LED 控制器 IC, 配有初级电压反馈功能

BCR601 采用小型模块封装设计, 成本低, 非常适用于 LED 驱动器应用。与 DC-DC buck IC 方案相比, 该控制器具有集成度高, BOM 成本低, LED 寿命长等诸多优点。

线性电流控制

BCR601 是一种线性 LED 控制器 IC, 可通过外部激励晶体管调节 LED 电流。BCR601 支持 NPN 双极晶体管或 N 通道 MOSFET, 可支持 LED 宽电流输出和高达几安培的电流输出。通过改变外部电流检测电阻的大小, LED 电流可实现扩展。

电压反馈回路到初级侧

BCR601 通过光耦向初级侧提供电压反馈, 以控制变压器初级的输出电压, 例如, 反激式控制器, 如 XDPL8218。控制环路最大限度地降低输出电压过冲和主开关管的损耗。再根据应用需求通过外部配置调整电压输出, 形成高效的 LED 系统。

纹波抑制

BCR601 实现了恒定的 LED 电流, 减小输出纹波电流, 实现无频闪的目的。

调光选项

LED 电流可通过电阻器或者连接到多功能 MFIO 引脚的模拟电压进行调光。

热插拔能力

在不损坏 LED 的情况下, 嵌入式热插拔保护可在工作过程中插入和拔出任何 LED 负载。

过温和过电压保护, 确保 LED 的可靠运行和安全

如果超过了结温阈值, 过温保护功能将使 LED 电流降低 30% 的标称电流。一旦结温降至温度保护点以下, 则恢复额定 LED 电流。当电源电压超过阈值时, 可调节过电压保护将通过光耦合器向初级侧提供反馈。

关键性能

- > 电源电压为 8V 到 60V
- > 支持光耦合器初级电压反馈, 最大限度地降低功耗
- > AC 纹波抑制
- > 支持广泛的电流范围, 具体取决于外部晶体管
- > 栅极驱动器电流为 10mA
- > LED 电流可通过 $R_{\text{设置}}$ 进行调整
- > MFIO 引脚调光
 - 模拟降至 3%
 - 电阻低至 3%
- > 热插拔能力
- > LED 电流精度 $\pm 3\%$
- > 过电压保护
- > 过温保护

典型应用

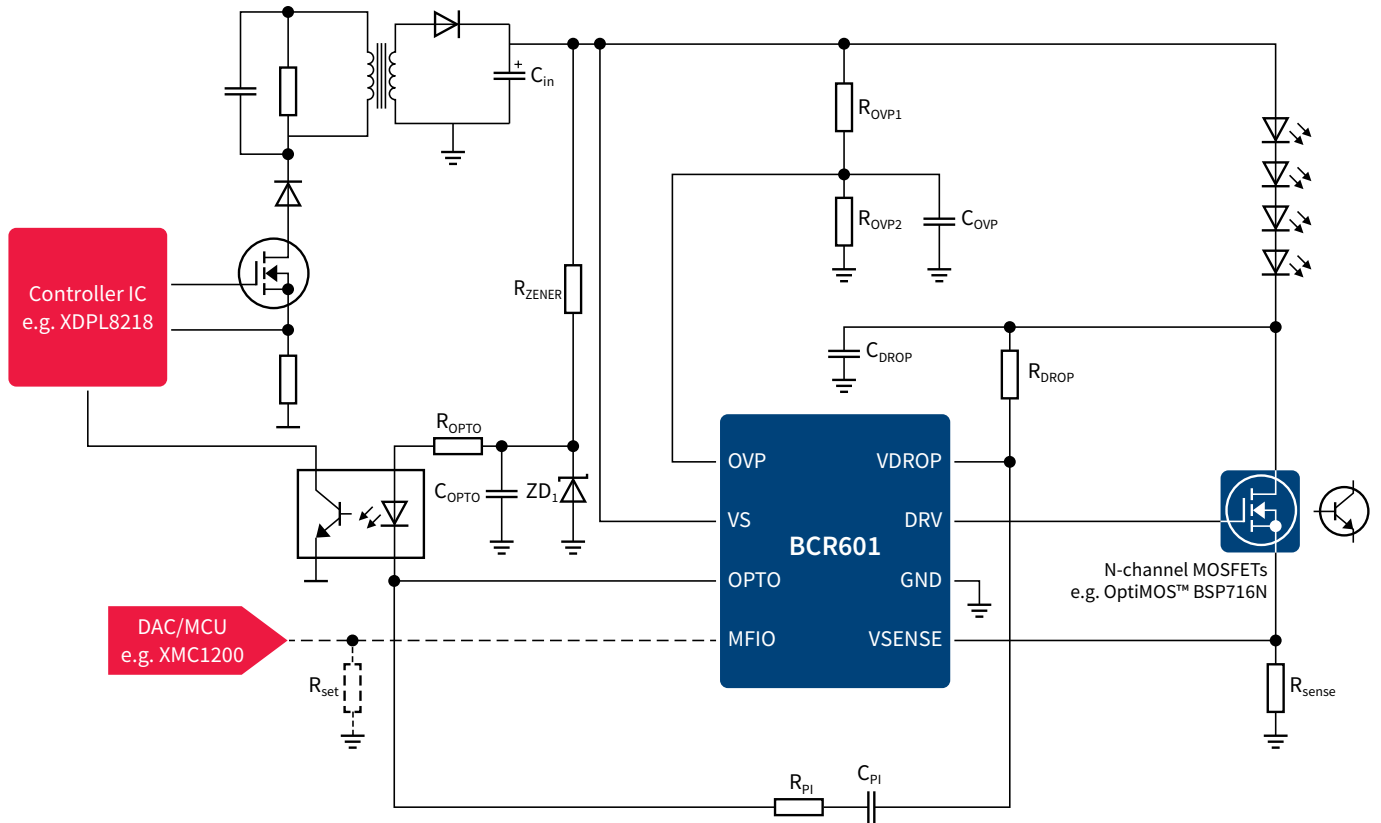
- > LED 驱动器



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典型应用图



订购信息

类型	描述	订购信息
BCR601	60 V 线性 LED 控制器 IC, 配有初级电压反馈功能	BCR601XUMA1
DEMO_BCR601_60V_IVCTRL	60 V 演示板, 配有 BCR601, I _{输出} 500 mA (可配置) 且配有 BSP716N	DEMOBCR60160VIVCTRL

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