



产品简介

BCR431U

适用于更多 LED 或更长灯带的线性低电压降 LED 驱动器 IC

BCR431U 是一种采用 SOT23-6 小型封装的线性 LED 驱动器 IC, 无需外部功率晶体管即可独立调节 LED 运行电流。它适用于驱动高达 37 mA 的电流, IC 电源电压为 6 V 到 42 V。LED 电流水平可通过将高阻电阻器 R_{set} 连接至引脚 RS 进行调节。

集成式 LED 驱动器具有极低电压降, 37 mA 时电压降最高为 200 mV, 从而改进整体系统效率, 并提供额外的电压净空, 以补偿 LED 正向电压或电源电压的公差。

依托可在 BCR431U 结温很高时降低 LED 电流的智能温度控制电路, 无论温度如何, 驱动电流始终处于可控状态。

关键性能

- › 电源电压为 6 到 42 V
- › 控制高达 37 mA LED 电流
- › 15 mA 时典型饱和电压为 105 mV
- › 智能温度控制
- › 整个电流范围内 LED 电流精度为 $\pm 10\%$
- › 高 ESD 稳健性
- › LED 电流可通过 R_{set} 功能进行调节

主要优点

- › 应用灵活, 适用于 12 V / 24 V / 36 V 设计
- › 低电压降产生电压净空
 - 更多 LED 和更高效率
 - 更长 LED 灯带和更少的馈入点
 - 所用电源更具灵活性
- › 精度高, 适用于低功率 LED
- › 在临界温度范围内提供热保护
- › 浪涌保护

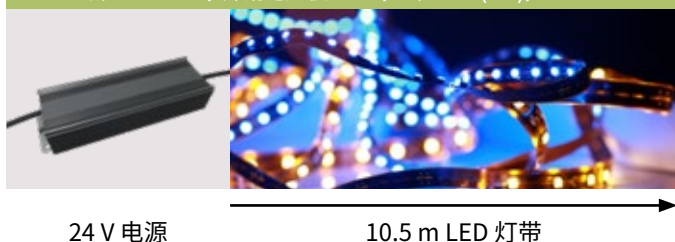
应用

- › LED 灯带和模块
- › 建筑照明
- › LED 显示屏和字型灯
- › 应急照明
- › 零售照明
- › 白色家电照明

线性 LED 驱动器 IC, 电压开销 1.4 V, 7 个 LED (3 V), 20 mA



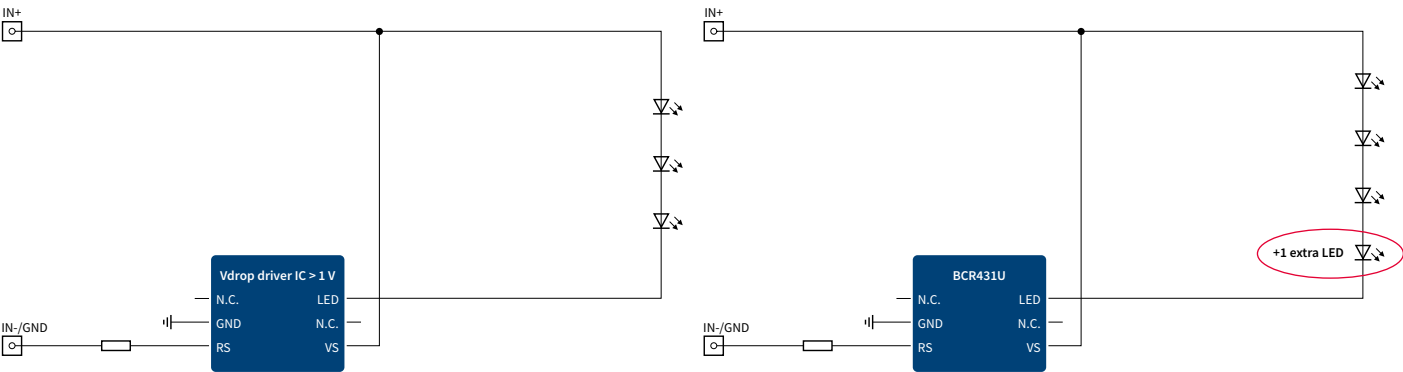
新 BCR431U, 开销电压仅 0.2 V, 7 个 LED (3 V), 20 mA



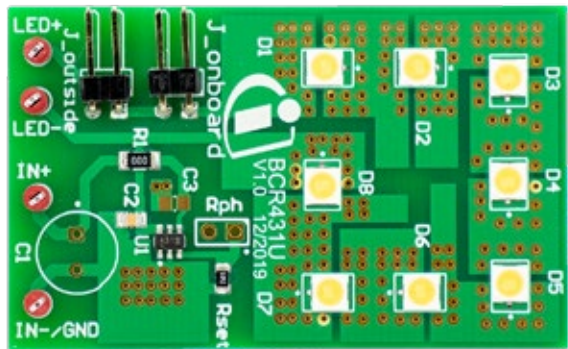
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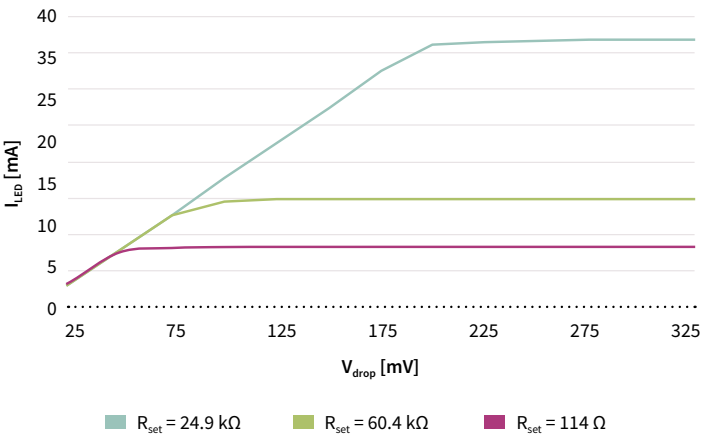
典型应用图 - 使用 24 V、5.6 V LED
同样的例子分别适用于 7 个 2.9 V LED/ 8 LED



演示板



LED 电流与电压降比较



订购信息

产品型号	封装	说明	OPN
BCR431U	SOT-23-6	具有低电压降的线性 LED 驱动器 IC	BCR431UXTSA1
DEMO_BCR431U_LVDROP	演示板	演示板 BCR431U, 带 8 个 LED, 电流为 15 mA	DEMOBCR431ULVDROPTOBO1

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