



Enables PWM / DC Dimming without an MCU

High Voltage High Accuracy LED Source Drivers

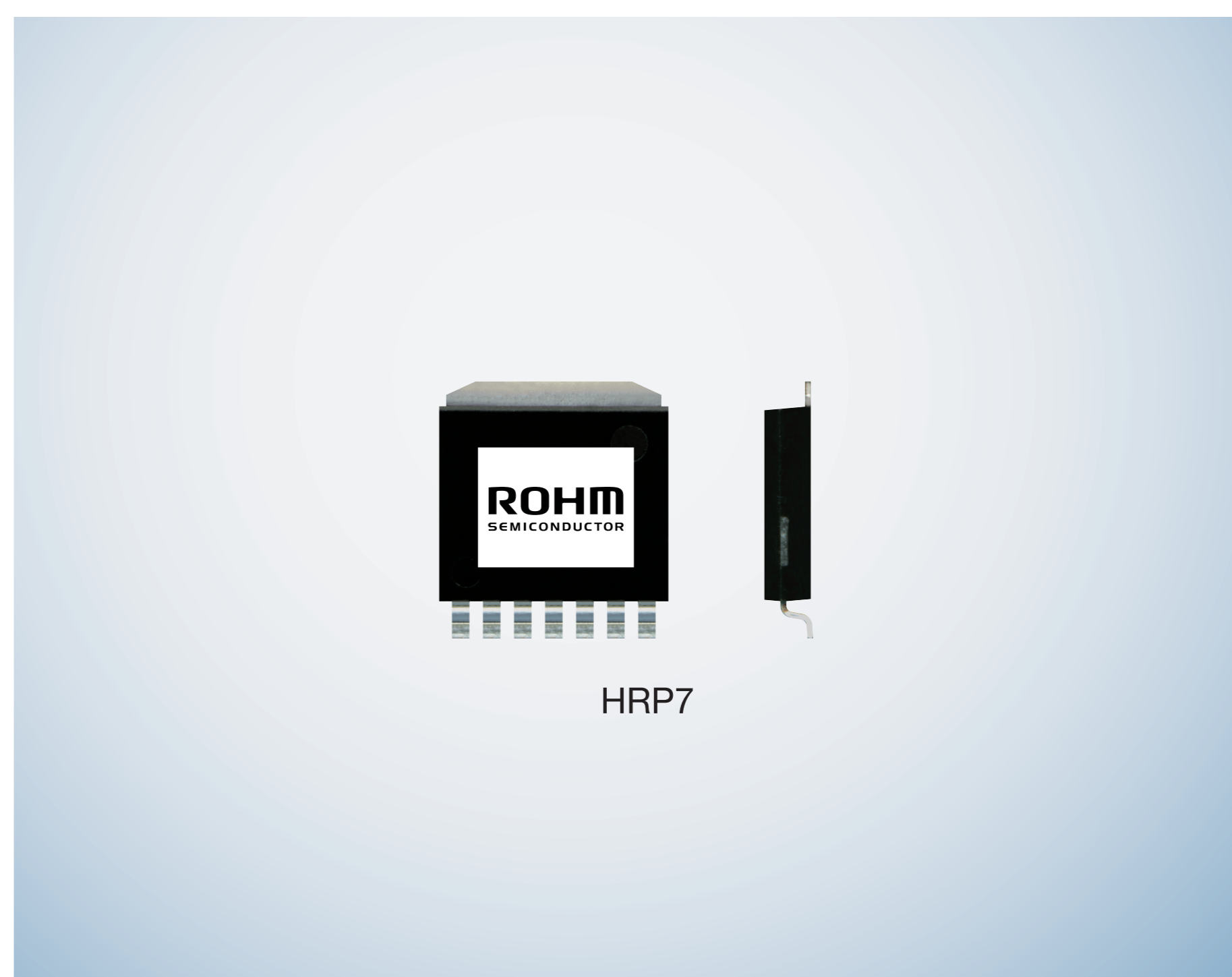
BD83732HFP-M / BD83733HFP-M

Features

- Switches between PWM and DC modes without a microcontroller and provides high current accuracy : $\pm 3\%$
- Built-in LED current derating function
- LED error flag output possible via PBUS function
- Wide input voltage range : 4.5V to 42V

Applications

- Automotive exterior lamps



Block Diagram

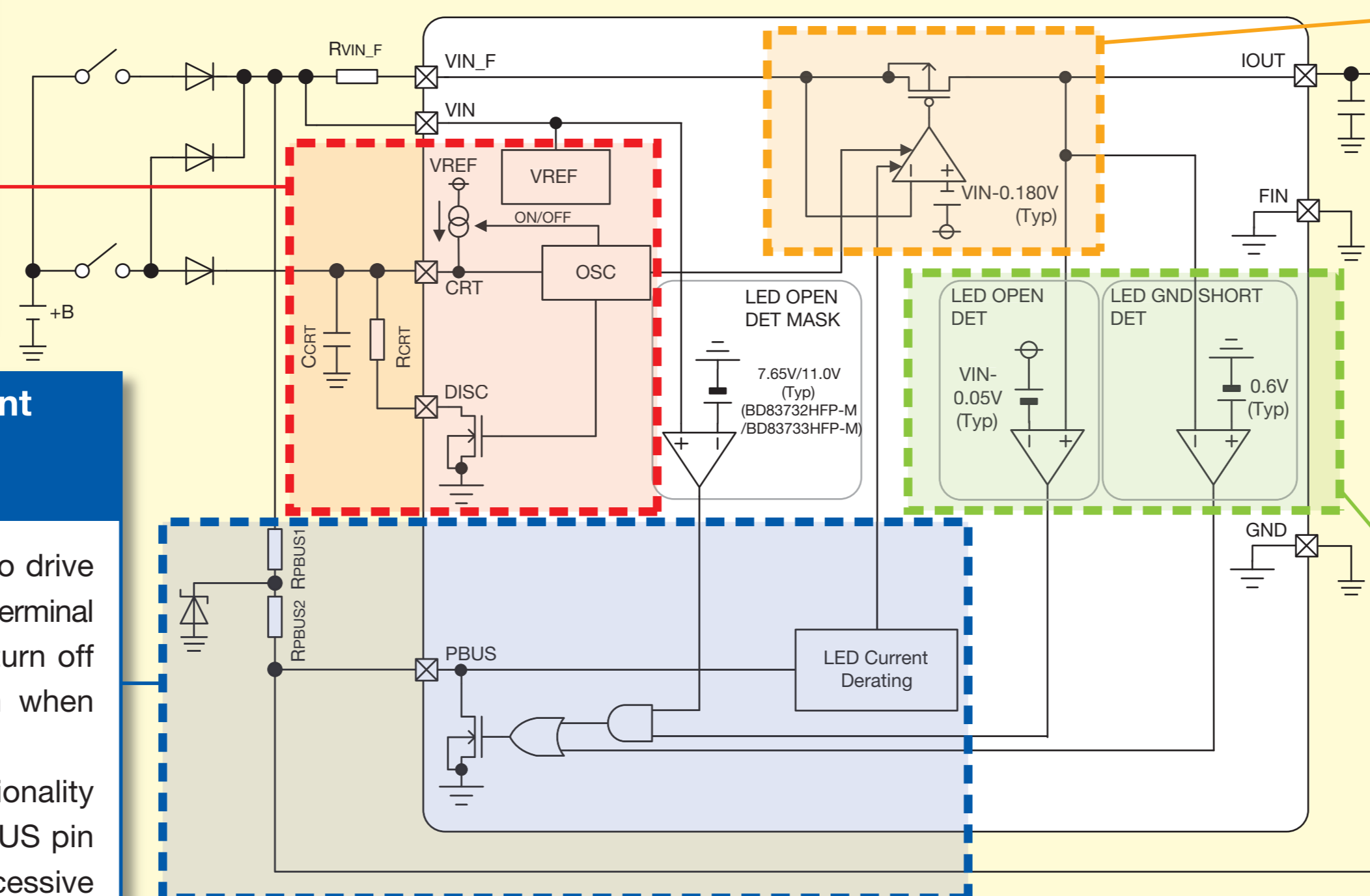
LED Drivers for Automotive Exterior Lamps

PWM Dimming

Enables switching between PWM and DC modes. CR timer built-in for PWM mode setting without a microcontroller.

PBUS Function & LED Current Derating Function (DC Dimming)

In cases where multiple ICs are used to drive numerous LEDs, connecting the PBUS terminal of each channel makes it possible to turn off all LED rows at the same time even when some LEDs are open/shorted. In addition, LED current derating functionality can be achieved by monitoring the PBUS pin voltage. Ideal for protecting against excessive LED heat generation.



Constant Current Output (Supply Side)

A source-type constant current drive is utilized, taking into account LED ground shorts. In addition, the built-in output current derating function minimizes heat generation during overloads.

LED Open/Short Protection

LED open/short protection is included, along with a PBUS terminal that detects abnormal conditions and can alert drivers.

Lineup

Part No.	Application	Number of Channels	Maximum Input Voltage (V)	Output Current (mA)	Current Accuracy (%)	Dimmer Mode	LED Open / Short Detection	LED Open Detection Mask	Package
BD8372HFP/EFJ	Rear / Turn Lamp	1	50	200	± 3	High Current / Low Current	✓	✓ (8.0V)	HRP7 / HTSOP-J8
BD8374HFP/EFJ	Rear / Turn DRL Lamp	1	50	500	± 3	PWM	✓	×	HRP7 / HTSOP-J8
☆BD83732HFP	Turn / DRL / FOG / POSITION Lamp	1	50	500	± 3	PWM/DC	✓	✓ (7.65V)	HRP7
☆BD83733HFP	Turn / DRL / FOG / POSITION Lamp	1	50	500	± 3	PWM/DC	✓	✓ (11.0V)	HRP7

☆ : Under development