AEC-Q100 qualified • Integrated thermal dispersion circuit reduces design load along with mounting area
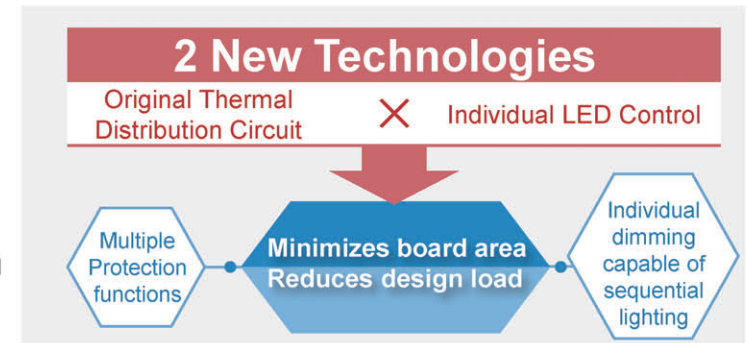
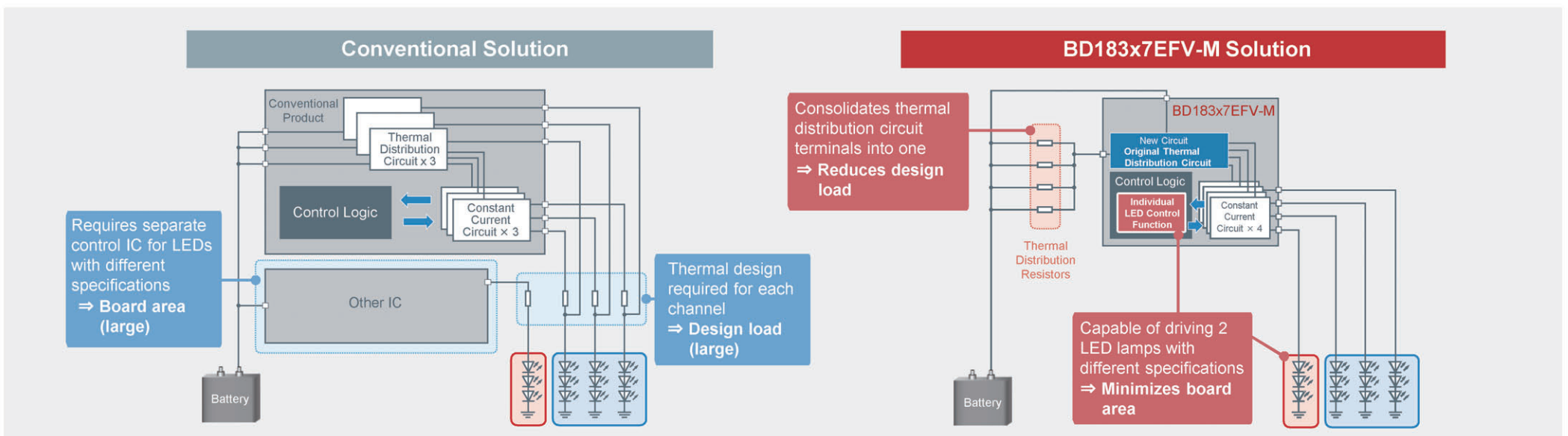# 4ch Linear LED Driver ICs

BD18337EFV-M/BD18347EFV-M

Built-in original thermal distribution circuit eliminates the need for heat distribution circuit terminals at each output channel, simplifying thermal design

Achieves 4ch high output (150mA/ch) in a 16-pin package

Individual LED control function makes it possible to drive LED lamps with different specifications using a single LED driver

2 New Technologies

Original Thermal Distribution Circuit ✕ Individual LED Control

⬇

Multiple Protection functions — **Minimizes board area Reduces design load** — Individual dimming capable of sequential lighting

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■ Advantages of ROHM's New Integrated Thermal Distribution Circuit + Individual LED Control Technology

Conventional Solution

Conventional Product
Thermal Distribution Circuit × 3
Control Logic
Constant Current Circuit × 3
Other IC
Battery

Requires separate control IC for LEDs with different specifications ⇒ Board area (large)

Thermal design required for each channel ⇒ Design load (large)

BD183x7EFV-M Solution

BD183x7EFV-M
New Circuit Original Thermal Distribution Circuit
Control Logic
Individual LED Control Function
Constant Current Circuit × 4
Thermal Distribution Resistors
Battery

Consolidates thermal distribution circuit terminals into one ⇒ Reduces design load

Capable of driving 2 LED lamps with different specifications ⇒ Minimizes board area

Supports Common Board Design that Meets the Safety Standards of Different Countries/Regions

Complies with EU Regulations

Batch OFF control

BD183x7EFV-M

VIN | OUT1 | Disconnection, etc. ✕
OUT2
OUT3
OUT4

Battery

MSET1

MSET1=GND

I_{OUT4} I_{OUT3} I_{OUT2} I_{OUT1}

Turn all LEDs OFF at once

Compatible with Regulations in the Japanese and Korean Markets

Individual OFF Control

BD183x7EFV-M

VIN | OUT1 | Disconnection, etc. ✕
OUT2
OUT3
OUT4

Battery

MSET1

MSET1=OPEN

I_{OUT4} I_{OUT3} I_{OUT2} I_{OUT1}

Reduces design load by ensuring compliance with safety standards in the event of abnormalities

Applications Examples

- Rear lamps (stop/tail)
- License plate lamps
- Fog Lamps
- Turn signals
- DRLs

LED Driver ICs with Built-In Thermal Distribution Circuit: Specifications

Part No.	Function	No. of Ch	Supply Voltage (V)	Withstand Voltage (V)	Max Output Current	LED Current Accuracy	Operating Temperature (°C)	Package
New BD18337EFV-M	3-stage LED drive	4	5.5 to 20	40	150mA/ch	±5%	- 40 to +125	HTSSOP-B16
New BD18347EFV-M	2-stage LED drive							

The content specified in this document is correct as of June 1st, 2020.