



Newsletter 01/2009

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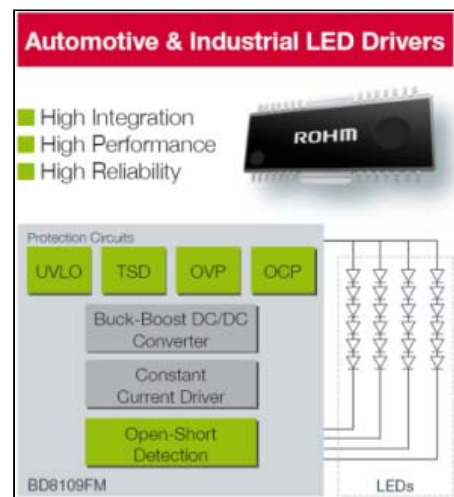
Rohm Semiconductor has broadened its line-up for Automotive and Industrial LED drivers.

Latest member is the BD8113EFV-E2, a white LED driver IC designed to provide constant current drive for white LED backlights in medium- to large-format automotive TFT-LCD displays. This dual-channel driver is capable of up to 150mA constant current per channel with current-mode buck/boost DC/DC control, ensuring constant display brightness, even with unstable battery input voltages over the entire automotive temperature range. The buck/boost configuration also frees up the restriction on the number of LEDs that can be connected in series. Additional features include a maximum input voltage of 36V (supply voltage range: 5V to 30V) and a wide operating temperature range (-40°C to 105°C).

The BD8113EFV-E2 is offered in a Pb-free HTSSOP-B24 (heat-sink TSSOP) package. Built-in protection functions include undervoltage lockout (UVLO), overvoltage protection (OVP), thermal shutdown (TSD), over current protection (OCP) and short-circuit protection (SCP). Inputs are provided for brightness modulation via PWM or VDAC control.

"LEDs perform much better under cold temperatures than CCFLs, making them ideal for automotive systems such as instrument clusters, infotainment displays, and multifunction display systems that incorporate multiple functions like radio, navigation and HVAC," says Youichi Kajiwara, ROHM's automotive driver team manager. "The new BD8113EFV-E2 driver is design-optimized for these demanding automotive applications."

The BD8113EFV-E2, when combined with ROHM's SMLK15W high heat dissipation white LEDs, provide the optimal solution for medium- to large-sized automotive TFT LCD applications.



[More Information on www.rohmeurope.com](http://www.rohmeurope.com)

LED driver for Indicator Lamps			
Device	Channels	LEDs	Package
BD6105FV	12	12 x 50mA	SSOP-B20W
BD6115F	8	8 x 50mA	SOP-16

White LED driver for Medium & Large size LCD Backlight			
Device	Remarks	LEDs	Package
BD6109FM	Built-in Buck-Boost converter	4 channel x 150mA 6 serial LEDs = 24 LEDs	HSOP-M28
BD6113EFV	Built-in Buck-Boost converter	2 channel x 150mA 6 serial LEDs = 12 LEDs	HTSSOP-B24
BD6118FM	Built-in Boost converter	4 channel x 150mA 6 serial LEDs = 24 LEDs	HSOP-M28

ROHM's ultra-low 1.2V drive ECOMOS Series

This new series of ECOMOS products were developed to meet the trend of decreasing power supply voltage in current and next-generation products. Advanced proprietary processing was utilized, resulting in remarkably low 1.2V drive (VGS) and 90% lower ON-resistance than conventional 2.5V products, reducing energy consumption significantly.



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5V direct I/O Capacitive Touch Sensors to enhance your set designs!

You want to enhance the style and functionality of your new designs? But it is too complex to replace mechanical tact switches by touch switches? ROHM has developed the following two Capacitive Touch Sensor ICs, which allow the implementation in 5V systems as direct replacements of mechanical switches!

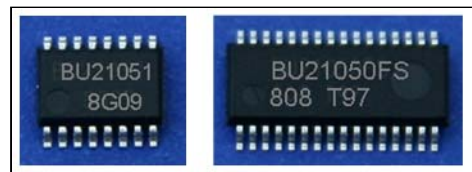
The "BU21050FS" has 8 capacitive touch pad sensor inputs and those directly control 8 output pins. Optionally the output can be configured with 4 pins as binary words. I.e. this IC can replace up to 8 mechanical switches.

The "BU21051FS" has 2 capacitive touch pad sensor input channels, which directly link into two output control pins. I.e. this IC can replace 2 mechanical switches.

Capacitive Touch Sensor control ICs widely known in industry are typically configured inside complex μ C architectures. Those traditional designs require software control, which can be highly complex and costly to develop and also costly to program in the manufacturing chain. The BU21050FS and BU21051FS from ROHM Semiconductor reduce such development costs and manufacturing costs to a minimum.

Also, they allow the use of a wide range of conductive materials as electrodes (Cu, ITO, conductive polymer, etc.) as well as all kinds of non-conductive overlays (glass, acrylic, plastics, etc.)

The settings of the sensitivity, of the noise suppression level and other functions are done cheaply by external resistors or by pulling the respective pin to GND or VCC.



ROHM Semiconductor GmbH supports your design with full

documentation. Samples are available. Evaluation boards can be arranged on request.

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