ISSI introduces LED Driver with Integrated Push Button Input and Fade-In/Fade-Out for Automotive Interior Lighting

Single & Dual Channel LED Drivers with 200mA/Channel drive in a compact SOP-8EP package

MILPITAS, Calif., January 25, 2016 -- Integrated Silicon Solution, Inc., a leader in advanced memory and analog IC solutions, today announced AEC (Automotive Electronics Council) Q100-certified Linear LED drivers for automotive interior lighting applications. The IS32LT3174 and IS32LT3120 are single and dual channel specialty drivers with programmable current source, push-button input and integrated fade-in/fade-out. The devices are designed for use in LED-based map lights, dome lights, door lights and other automotive lighting applications.

The IS32LT3174 & IS32LT3120's enhanced features reduce part count compared to the prevailing discrete offerings, which enables automotive manufacturers to develop a compact system design and help reduce time to market. Furthermore, the single and dual integrated LED drivers reduce design complexity and improve system reliability.

"As LED lighting becomes more pervasive in automotive interior and exterior lighting, ISSI's special function LED Drivers are easy to integrate into designs, while also providing the highest level of reliability and performance expected by our automotive customers, "said Ven Shan, ISSI's vice president of analog products. "The new part extends ISSI's automotive lighting portfolio to provide a complete range of solutions to meet customers' interior and exterior lighting applications."

The IS32LT3174 & IS32LT3120 consists of a single or dual linear programmable constant current source -- a single external resistor is all that is required to adjust the LED current from 10 to 200mA. Another resistor sets the fade-in and fade-out time with integrated Gamma correction. The devices integrate a 63 step fade-in and fade-out algorithm (Gamma correction), which causes the output LED current to gradually ramp up or down from the full source value to zero after the channel's control pin is pulsed. This feature results in a reduced number of steps for the LED intensity setting while enabling the intensity adjustments to appear more linear to the human eye. The LED current output can be controlled by a momentary contact switch or logic level signal. An internal debounce circuit conditions the input signal so a single press of the mechanical switch does not appear like multiple presses.

The device also integrates protection features, such as open and short LED fault detection and thermal rollback and thermal shut down to increase system longevity and reliability. The output current of both channels are equal to the set value as long as the die temperature of the IC remains below 125°C (Typical). If the die temperature exceeds this threshold, the output current of the device will begin to reduce at a rate of 3%/°C. The device will enter thermal shutdown if the temperature exceeds 155°C.

Packaging and Pricing

The IS32LT3174 & IS32LT3120 are offered in a thermally enhanced SOP-8EP package. Pricing for the IS32LT3174 is $0.45 and IS32LT3120 is $0.55 per unit in 10,000 unit quantities. Samples can be ordered through ISSI's global sales team and worldwide distribution partners.

About Integrated Silicon Solution, Inc.

ISSI is a fabless semiconductor company that designs and markets high performance integrated circuits for the following key markets: (i) automotive, (ii) communications, (iii) industrial, medical, and military, and (iv) digital consumer. The Company's primary products are high speed and low power SRAM and low, medium, and high density DRAM. The Company also designs and markets NOR flash products and high performance analog and mixed signal integrated circuits. ISSI is headquartered in Silicon Valley with worldwide offices in Taiwan, Japan, Singapore, China, Europe, Hong Kong, India, and Korea. Visit our web site at http://www.issi.com/

Integrated Silicon Solution, Inc.
Ven Shan
P: 408-969-4622
vshan@issi.com
Aaron Reynoso
P: 408-969-5141
Areynoso@issi.com

INTEGRATED SILICON SOLUTION INC