

Product Overview

LC75760UJA: LED Driver, 12-Channel, Constant Current

For complete documentation, see the data sheet.

The LC75760UJA is 12 Channel LED driver having shift register circuit (serial input, series / parallel output), latch circuit, LED driver of the constant current output type. It is usable for display such as illumination, the backlight LED, the warning light of the instrument panel. This LSI has 6ch PWM (Pulse Width Modulation) function to perform brightness adjustment of the LED. Furthermore, built-in the thermal protection function and open / short / adjacent outputs short detection function.

Features

- The LED driver outputs of up to 12-ch can drive LED directly
 - Absolute maximum rating 6.8 V, maximum operating voltage 6.3 V
 - Absolute maximum rating 60 mA, maximum operating current 50 mA
 - Output current regulation function (256 Steps)
 - Open / short / adjacent outputs short detection function
 - Slew rate limited switching function
 - Serial data communication supports 4-line serial format
 - Support 3.3 V and 5.0 V operation
 - Maximum operating frequency 2 MHz
 - Built-in 6ch PWM function for brightness adjustment of LED
 - Resolution of 128, 256, 512 or 1024 steps
 - PWM frame frequency can be controlled by serial data
 - Built-in thermal protection function
(125 °C : automatic adjustment of PWM, 150 °C : forced-off all LEDs)
 - Provides the ERR output pin
(125 °C temperature abnormality, open / short / adjacent outputs short abnormality, LED pull-up supply voltage abnormality, external resistance abnormally, fundamental clock abnormality, reset action)
 - Provides a RES pin and built-in voltage detection type reset circuit (VDET) for LSI internal initialization
 - Switch of the internal oscillator operating mode and the external clock operating mode can be controlled by serial data
 - Built-in oscillator circuit (Built-in resistor and capacitor for oscillation)
 - Built-in external resistance value diagnosis function for constant current
 - AEC-Q100 qualified and PPAP capable
- For more features, see the data sheet

Applications

- Instrument cluster
- HVAC
- Head-Up display (HUD)
- Measurement Equipment

End Products

- Automotive
- Industrial instrument

Part Electrical Specifications

Product	Compliance	Status	V _I Max (V)	I _O Max (mA)	LEDs in Series, Max #	LEDs in Parallel, Max #	Package Type
LC75760UJA-AH	AEC Qualified PPAP Capable Pb-free Halide free	Active	5.5	50	1	12	SSOP-24

For more information please contact your local sales support at www.onsemi.com.

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