Shine Bright at any Topology.

Simplify your LED or Laser Diode System:
One IC, performing brilliant in various applications.

Benefits
- Analog and digital dimming
- Current defined by external transistor
- Two channel version with 180° phase shift
- Overvoltage protection of LED chain
- EMC optimized
- E522.31 - 1-channel, ±40kHz spread spectrum
- E522.33 - 1-channel
- E522.32 - 2-channel, ±40kHz spread spectrum
- E522.34 - 2-channel

Key Features
- \( V_{in} \): 5V to 55V
- \( V_{out} \): up to 80V
- Switch-mode, single or dual LED controller
- Boost, SEPIC, Buck-Boost or Buck topology supported
- Constant current regulation
- High precision differential high side sense up to 60V

Overview E522.3x family

With the E522.3x chips, Elmos introduces a LED controller family. The ICs are designed for input voltages between 5V and 55V and output voltages of up to 80V in boost mode. They can be operated – depending on the type – in single or dual LED chain mode.

High Robustness.
With an ambient temperature range of –40°C to +150°C, the Elmos ICs are made especially for use in harsh environments such as automotive conditions.

Great Variety.
In addition to high robustness, the components offer a great variety in the selection of circuit topologies, such as Boost, SEPIC, Buck-Boost and Buck. The switching frequency can be adjusted from 250kHz up to 600kHz by means of an external resistor or synchronized with other components in master-slave configuration. Power consumption in sleep mode is only 8µA.

Complete Monitoring.
The versatility of the E522.3x controller family is completed by various control and monitoring functions, e.g. protection against short-circuit, overtemperature, overvoltage, undervoltage and load break.

Full Control.
The LED controllers support PWM and analog dimming for the LED brightness control, both are working in parallel. The PWM of E522.3x allows a wide dimming ratio of >1000:1 at PWM frequencies of up to 400Hz.

The Elmos high voltage LED Controllers offer top performance at almost every topology. In addition the ICs give you full control and monitoring of the system.

Elmos Support

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