A8503
Ultra-Small WLED/RGB Driver for Medium Displays

Contact Sales for more information.

Features

- Active current sharing between LED strings for tight current matching and accuracy
- Drive up to 10 series, 6 parallel LEDs, (Vf = 3.7 V max, If = 25 mA).
- Boost converter with integrated 50 V DMOS
- LED sinks rated for 25 mA
- PWM dimming with LED duty cycle control
- Open LED protection
- Short LED string protection
- Boost current limit, OTP and soft start.
- Over Voltage Protection and open diode protection.
- Input UVLO protection
- Latch or Auto restart fault mode
- PACKAGE: 4 mm × 4 mm MLP-26

Applications

- LED backlight displays

Description

A8503 is a multi-output WLED/RGB driver for medium size display backlighting. The A8503 integrates a boost converter and 6 current-sinks to provide a WLED/RGB driver. It can work from single power supply 4.3 to 5.5 V. The boost converter can drive up to 60 LEDs at 20 mA per LED at 5 V battery voltage. The boost converter is constant frequency current mode converter. The integrated boost DMOS switch is rated for 50 V, 2 A.

PWM dimming allows LED currents to be controlled in 500:1 ratio.

A8503 provides protection against over voltage, open diode, open and short LED string, over temperature, pulse by pulse switch current limit and short circuit. With MODE pin low, IC latches on fault and can be re-enabled only by recycling input voltage Vin or toggling EN pin. When MODE pin connected to Vin, IC autorestart.

Complete Part Numbers

Part Number	Package Type	RoHS Compliant	Part Composition/ RoHS Data	Temperature	Comments	Samples	Distributor Stock
A8503EECTR-T	26-lead QFN/MLP	Yes	view data	-40 °C to 85 °C	*new*	Contact Marketing Representative	Check Stock

Allegro's products are not to be used in life support devices or systems, if a failure of an Allegro product can reasonably be expected to cause the failure of that life support device or system, or to affect the safety or effectiveness of that device or system.