Driver Powers Up to Six Strings of LEDs

TDK-Lambda, a group company of TDK Corporation, has launched its second generation ALD6 series of multi-output dc-dc backlight LED drivers. The ALD6 was specifically designed for LCD displays that are increasingly migrating from cold cathode florescent (CCFL) backlighting to LEDs, due to the improved brightness, higher efficiency and longer life that LEDs provide.

Each ALD6 device can be used to backlight LEDs arranged in 1, 2, 3, or 6 string configurations. The drivers feature wide-range dimming controls with resistive, analog, or PWM inputs that provide smooth LED brightness transitions. The ALD6 has six outputs, each of which can provide up to 50mA of constant-current drive to strings of LEDs connected in series and/or parallel configurations for backlighting LCD displays. Therefore, for a single-string LED configuration, the combined output current jumps to 300mA.

The ALD6 drivers operate with an input voltage of from 10.8 to 13.2VDC and provide an output voltage of 25V to 38VDC. These compact single package drivers are available in either DIP or SMD packages that measure about 23mm x 21mm (less than one square inch).

Other features include a Remote On/Off input and an LED Open Alarm that changes state if the drive current to any powered LED-string develop an open circuit. These drivers are convection cooled and designed to operate in ambient temperatures ranging from -30°C up to +80°C. The ALD6 can provide 0 to 100% brightness control when an external PWM signal is provided. The brightness will vary directly with the duty cycle of the PWM signal. A combination of external analog or resistive and PWM dimming controls can be accommodated.

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