

LX6501

High Performance Multi-Lamp CCFL Controller

PRODUCTION DATA SHEET

DESCRIPTION

The LX6501 is a high performance CCFL controller optimized for LCD- performance is also enhanced to TV and other multi-lamp LCD display applications.

The controller includes fullv integrated on chip gate drivers with In addition a comprehensive dimming adequate capacity to drive N channel power MOSFET's on both low side and high side of a full bridge inverter with input voltage of up to 27V. An on-chip regulator generates the internal driver operating voltage to minimizing external components.

In addition, it also synchronization capability that allows current between inverters or to an range. external synchronization signal.

The lamp current regulation improve both the regulation accuracy and the dynamic response at transient conditions.

control feature is facilitated to satisfy various brightness control requirements.

The LX6501 includes extensive fault detection functions, including open lamp, over voltage, short circuit, over current, and over temperature protection. supply the output gate drive circuit. A programmable input Under Voltage This allows a direct connection of the Lock Out (UVLO) protection circuit controller to the inverter supply monitors the input voltage and protects the inverter from under voltage provides operation.

The device is available in the 28 lead the user to synchronize both the TSSOP, and SOWB surface mount frequency and phase of the lamp packages in the industrial temperature

IMPORTANT: For the most current data, consult MICROSEMI's website: http://www.microsemi.com Protected by U.S. Patent No. 7,112,929, Patents Pending

KEY FEATURES

- Integrated Gate Driver to Support High Side N Channel MOSFET
- 0.6A Sourcing and 1.2A Sinking Drive Current
- 10 to 27 Volt Power Rail for Inverter Operation (35V Absolute Maximum)
- On Chip Regulator with Under Voltage Lock Out Protection
- Inverter Operating Frequency and Phase Synchronization
- Programmable Strike Time. Fault Time, Strike Frequency, and Burst Dimming Frequency
- Multiple Voltage and Current Sense Inputs
- Programmable Input Under Voltage Lockout

APPLICATIONS

- . LCD-TV
- Multi-Lamp LCD Monitors
- CCFL, EEFL, FFL Backlight Systems
- **PRODUCT HIGHLIGHT** VIN LX6501 VIN Regulator AOH And UVLO lancer AOL ξ Bal BOH BOL SYNC IN [Synchronization Control I SNS SYNC_OUT V_SNS GND GND PACKAGE ORDER INFO Plastic TSSOP Plastic SOWB $T_A (^{\circ}C)$ 28-Pin 28-Pin DW RoHS Compliant / Pb-free RoHS Compliant / Pb-free -40 to 85 **LX6501IPW LX6501IDW**

Note: Available in Tape & Reel. Append the letters "TR" to the part number. (i.e. LX6501IPW-TR)



INFORMATION

Thank you for your interest in Microsemi[®] Analog Mixed Signal products.

The full data sheet for this device contains proprietary information.

To obtain a copy, please contact your local Microsemi sales representative. The name of your local representative can be obtained at the following link http://www.microsemi.com/contact/contactfind.asp

or

Contact us directly by sending an email to:

IPGdatasheets@microsemi.com

Be sure to specify the data sheet you are requesting and include your company name and contact information and or vcard.

We look forward to hearing from you.