



DESCRIPTION	APPLICABLE DOCUMENTS	KEY FEATURES
<p>Microsemi's LX<sup>®</sup>23108L is an 8-Port LED Driver used to drive LED strings.</p> <p>The LX23108L has eight internal current limiters with high bandwidth PWM controls used to maintain the required LED current.</p> <p>The LX23108L is controlled and driven by the LX<sup>®</sup>24132 32 port Display Backlight LED Controller.</p> <p>Each LX24132 can control up to four LX23108Ls. The LX23108L can drive currents of up to 100 mA @ 100% PWM, or 200 mA @ 50% PWM. The device is designed to operate with external sense resistors used for scaling the LEDs currents. Such configuration provides maximum flexibility for the system designers to change the LED current while maintaining high accuracy.</p> <p>A dedicated per channel PWM control signal coming from the LX24132 enables/disables each of the eight channels. The LX23108L is available in a 32 pin, 5 mm x 5 mm QFN package.</p>	<ul style="list-style-type: none"> <li>◆ LX24132/ LX23108L AN-182 Designing a Low Current LED BL Driver System, Catalogue Number 06-0077-080</li> <li>◆ LX24132 Datasheet 32 Port LED Driver Catalogue Number 06-0073-058</li> </ul>	<ul style="list-style-type: none"> <li>◆ Excellent thermal performance.</li> <li>◆ High current accuracy: ± 2% overall chipset (LX24132 and LX23108L) precision current accuracy</li> <li>◆ Driving capability (Constant – Current Sink) 0 mA to 100 mA @ 100% PWM, or 200 mA @ 50% PWM</li> <li>◆ Per channel PWM signal</li> <li>◆ Fault detection and protection:               <ul style="list-style-type: none"> <li>• Open string</li> <li>• Short LED</li> <li>• Over-temperature protection per channel</li> </ul> </li> </ul>
<p><b>IMPORTANT:</b> For the most current data, consult <i>Microsemi's</i> website: <a href="http://www.microsemi.com">http://www.microsemi.com</a></p>		

PACKAGE ORDER INFO	
T <sub>A</sub> (°C)	Plastic 5 x 5 mm QFN 32 pin
	RoHS compliant / Pb free
-40 to +85°C	LX23108LILQ
<p><b>Note:</b> Available in Tape &amp; Reel. Append the letters "TR" to the part number. (i.e. LX23108LILQ-TR)</p>	

## Pin Configuration

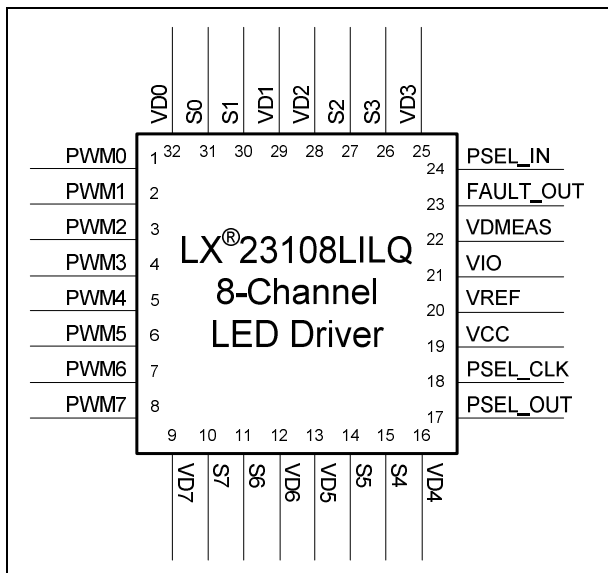


Figure 1: LX23108LILQ Pin Configuration

### ABSOLUTE MAXIMUM RATINGS

Supply Input Voltage ( $V_{CC}$ )	-0.5V to 5.5V
Supply I/O Voltage ( $V_{IO}$ )	-0.5V to 5.5V
LED Control Pins	-0.3V to 72V
All Other Pins	-0.5V to $V_{IO}+0.3$ up to 5.5V
Operating Ambient Temperature Range	-40° to +85° C
Maximum Operating Junction Temperature	150°C
ESD Protection at all I/O pins	+/- 2KV HBM
Storage Temperature Range	-65°C to +150°C
Package Peak Temperature for Solder Reflow (40 seconds maximum exposure)	260°C (+0 / -5°C)

### THERMAL DATA (POWER CONSUMPTION)

27.5° C/W thermal resistance-junction to ambient, according to the JESD51-7 (Contact factory for additional thermal performance data)  
 Junction Temperature Calculation:  $T_J = T_A + (PD \times \theta_{ja})$ .

© 2009 Microsemi Corp.  
 All rights reserved.

For support contact: [sales\\_AMSG@microsemi.com](mailto:sales_AMSG@microsemi.com)

Visit our web site at: [www.microsemi.com](http://www.microsemi.com)