

## LED Driver Module for Solid State Lighting Applications



### High Efficiency High Power Dimmable Single String Power Supply and LED Driver Module for Residential, Commercial and Industrial LED Lighting Applications

The LXMG221W-0700034-D0 is a high-efficiency (90%), compact LED lighting driver module designed for the next generation LED-lighting in worldwide residential, commercial and industrial applications. It supports a universal AC input (90V<sub>AC</sub> to 305V<sub>AC</sub>, 47Hz or 63Hz) and drives one output string of LED's at 700mA up to 48V (34W typical).

The driver can be easily integrated in dimming or non-dimming LED fixtures. Dimming is controlled through terminal leads that include a BRITE\_A dimming input with a dedicated RETURN lead. The amplitude of the output LED string current will vary from 10% to 100% corresponding to a 1V<sub>DC</sub> to 10V<sub>DC</sub> signal on the BRITE\_A input or potentiometer.

The LED driver is protected in case of over-temperature events as measured at the case hot spot. During such events the driver will shutdown; when the temperature decreases sufficiently, the module will automatically restart. Other safety features include open-output circuit protection and short circuit protection.

Enclosed in a compact IP66 rated metal package, the LXMG221W-0700034-D0 meets UL1310 class 2 for SSL (designed to meet UL8750), meets FCC Class B and is SELV compliant.

Key Features	Benefits
<b>Universal Input AC Voltage Range</b> > 90V <sub>AC</sub> -305V <sub>AC</sub> , 47Hz to 63Hz	<b>Versatility and Flexibility while maintaining High Efficiency</b>  > The product is designed for a wide variety of LED lighting fixtures providing reduced SKUs <ul style="list-style-type: none"> <li>• Indoor and Outdoor</li> <li>• Dimming and Non Dimming</li> <li>• Residential, Commercial and Industrial</li> <li>• Mid to High Power</li> <li>• Sold in Worldwide Markets</li> </ul>
<b>Wide Power Output</b> > Up to 34W	
<b>Multiple Dimming Options</b> > 0V to 10V & Potentiometer > Can also operate without dimmer	
<b>Single String Configurations for a Wide Variety of Loads</b> > Current: 1 x 700mA > Voltage: Up to 48V (internally limited to 56V)	
<b>Compact IP66 Package</b> > Plastic case with hole for easier mounting	
<b>Automatic shutdown protection and re-start in case of power loss and over-case temperature events</b>	

### APPLICATIONS

Worldwide Smart Residential, Commercial and Industrial High Power LED Lighting including:

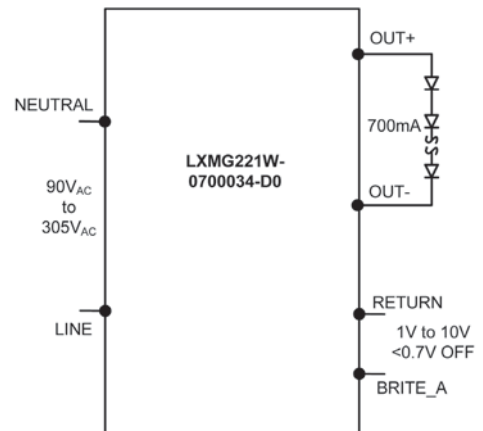
- > LED Down-lights
- > LED Street Lights



### ADDITIONAL FEATURES

- > High Efficiency
- > Universal AC Input  
90 V<sub>AC</sub> ~305V<sub>AC</sub>
- > Constant Current  
700mA Output,  
SELV-Compliant
- > Dimming between 10%  
to 100% (0-10V Dimming  
and Potentiometer)
- > Plastic Case (IP66)
- > Robust Protection:  
OVP, OCP, SCP, OTP
- > Meets UL1310 Class 2  
(Pending) and is designed  
to meet UL8750
- > FCC Class B Compliant
- > RoHS Compliant
- > Can Operate from -30°C to  
+70°C with Proper Cooling  
(maximum case  
temperature 90°C)

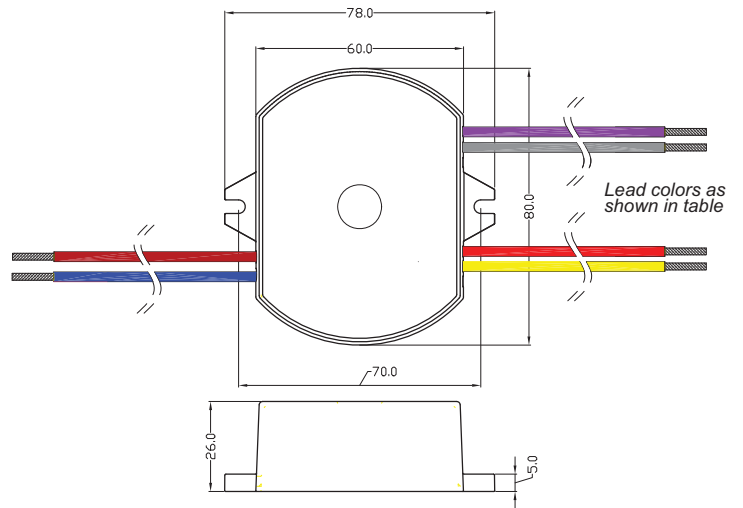
### CONFIGURATION



### LEAD DESCRIPTION

LEAD DESCRIPTION		
Name	Pin #	Description
<b>INPUT TERMINAL LEADS (18AWG) 16/30 Stranded</b>		
BROWN	VIN Line V	Main Input Power Supply
BLUE	VIN Neutral	Main Input Power Supply
<b>CONTROL TERMINAL LEADS (22AWG) 7/30 Stranded</b>		
PURPLE	BRITE_A	Analog Dimming Input
GRAY	RETURN	Dimming Return
<b>OUTPUT TERMINAL LEADS (18AWG) 16/30 Stranded</b>		
RED	OUT+	LED String Anode Voltage (High Side)
YELLOW	OUT-	OUT1 LED Cathode Voltage (Low Side) 700mA

### DIMENSIONS



### SAFETY AND EMC COMPLIANCE

<b>CUL/CE</b>	UL UL1310 Class 2	
	EN 61347-1, EN61347-2-13 ( IEC62384 )	
FCC Title 47, Part 15	Conducted and Radiated Emission, Class B	
EN 61000-3-2	Harmonic Current Emissions	
EN 61000-3-3	Voltage Fluctuations & Flicker	
EN 61547	EN61000-4-2	Electrostatic Discharge Immunity
	EN61000-4-3	Radiated Susceptibility test
	EN61000-4-4	Electrical Fast Transient
	EN61000-4-5	Surge Immunity Test, AC Power Line
	EN61000-4-6	Conducted Susceptibility Immunity test
	EN61000-4-8 EN61000-4-11	Power Frequency Magnetic Field Immunity Test Voltage Dips and interruption immunity
<b>Life Expectancy</b>	5 years / 50,000 hours @ 100% duty at maximum hot spot case T 55°C	
<b>Environmental Standards</b>	EU RoHS, REACH	

### ORDERING INFORMATION

**LXMG221W-0700034-D0** | **High Power Single String LED Driver in Plastic IP66 Package**

**Technical Support Information:** for more information on LXMG221W-0700034-D0 and other Microsemi SSL LED Driver Modules please contact your local Area Sales Manager or Field Application Engineer. More information can be found at [www.microsemi.com](http://www.microsemi.com) or at +1(714)-898-8121

