

### AUTOMOTIVE



# LUXEON Neo 0.5mm<sup>2</sup>



## Industry-leading solutions for matrix head-lighting



LUXEON Neo LEDs, with their miniaturized form factor and low mechanical tolerances, are the ideal LED components for matrix head-lighting. All LUXEON Neo LEDs are hot binned at 85°C and IEC 60810 qualified.

FEATURES AND BENEFITS	PRIMARY APPLICATIONS
Higher drive current capability for increased flux performance	Adaptive Lighting
Low thermal resistance for better hot lumen performance	– AFS
Miniaturized package for dense population of boards	Headlight
Hot binned at 85°C monopulse (MP) to match closer to operating conditions	– Low Beam
IEC/PAS 62707-1 White LED	– High Beam

### LUXEON Neo 0.5mm<sup>2</sup> Absolute Ratings.

PARAMETER	PERFORMANCE
Minimum DC Forward Current	25mA
Maximum DC Forward Current	750mA
Maximum Junction Temperature <sup>[1]</sup>	150°C
Operating Case Temperature at Test Current <sup>[1]</sup>	-40°C to 125°C
Operating Case Temperature at Maximum Current [1]	-40°C to 125°C
LED Storage Temperature	-40°C to 130°C
Soldering Temperature	260°C
Allowable Reflow Cycles	3
ESD Sensitivity <sup>[2]</sup>	±2 kV HBM, ±200V MM, ±500 CDM
Reverse Voltage (V <sub>reverse</sub> )	LUXEON LEDs are not designed to be driven in reverse bias
Autoclave Conditions	121°C at 2 ATM 100% Relative Humidity for 96 Hours Maximum

Notes:

Proper current derating must be used to maintain junction temperature below the maximum. LUXEON Neo LEDs driven at or above maximum LED case temperature may have 1.

shorter lifetime. 2. Measured using human body model (per JESD22 A114), machine model (per JESD22 A115) and charged device model (per JESD22 C101).

#### Mechanical Dimensions.



Notes:

Drawings are not scale.

Drawings are not state.
All dimensions are in millimeters.

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