POLYMATECH ELECTRONICS

Datasheet

lead-free RoHS 2002/95/EC

Polymatech Electronics Limited
www.polymatech.in

PRODUCT DESCRIPTION

The FL36COB3030 series of high-flux, multi-die arrays in a smaller, easy-to-use platform. With FL36COB3030 LED lighting-class reliability, the FL36COB3030's small, uniform emitting surface enables both directional and non-directional lighting applications including lamp retrofit and luminaire designs. featuring a 17-mm optical source, the FL36COB3030 brings new levels of flux and efficacy to this form factor.

The FL36COB3030 series is designed with flip chip technology which has high heat emission property thus increasing product life and maintaining same CRI output

Applications

- Fiber-coupled illumination
- Architectural and Entertainment lighting
- Projection and micro-display based applications
- High-Brightness and large format LCD back-light units
- Edge-illuminated lighting guides
- High output spot lighting
- Machine vision

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Features

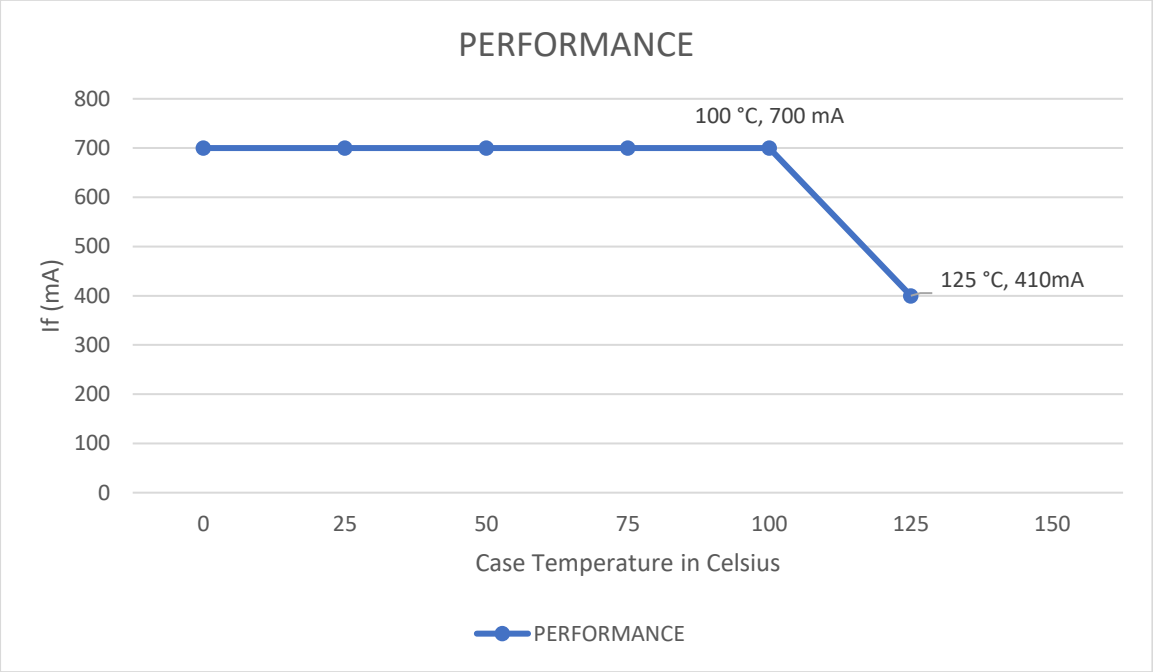
- High thermal conductivity package
- Large, monolithic chips with uniform emitting area
- encapsulated die with low profile protective window for higher lumen output
- Electrically isolated thermal path
- Environmentally friendly: RoHS and REACH compliant

Characteristics Maximum Ratings（Ta=25℃）

Characteristics	Units	Minimum	Typical	Maximum
Viewing angle (FWHM)	Degrees		115	
DC forward current (115.2V)	mA			700
Operating temperature	Celsius	-40		+60
Reverse current 18 V, 36 V)	μA			0.05
Maximum junction temperature	Tj Celsius			135

OPERATING LIMITS

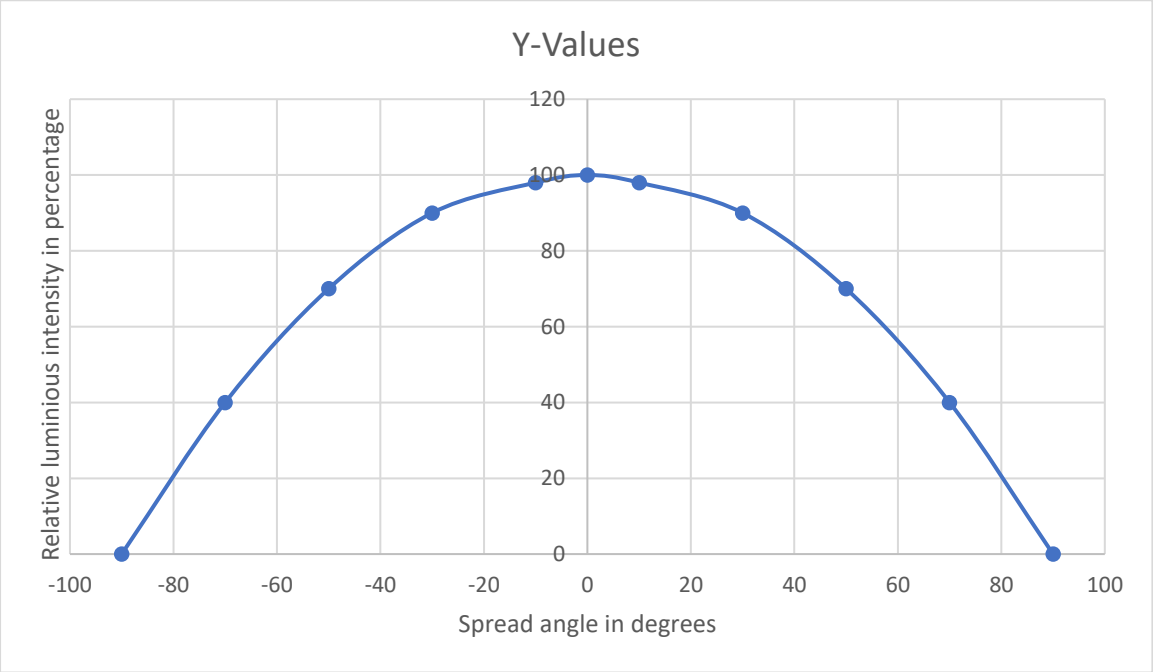
The maximum current rating of the FL36COB3030 depends on the case temperature (Tc) when the LED has reached thermal equilibrium under steady-state operation. The graphs shown below assume that the system design employs good thermal management (thermal interface material and heat sink) and may vary when poor thermal management is employed.
Polymatech Electronics LED recommends a maximum Junction temperature of 135 °C to ensure optimal LED lifetime.



TYPICAL SPATIAL DISTRIBUTION

The below graph is plot of the amount of light for each direction. Imagine the LED is in the bottom middle, where the 0 is and it is shining up.

Graph of **FL36COB3030** LED without lens.



Product Selection Guide

Part number	CRI/ Colour*	Applications
FL36COB3030ALWAYSWHITE	White	White LED
FL36COB3030ALWAYSDAY	Sunlight	Sunlight
FL36COB3030ALWAYSGREEN	510 nm	Green LED
FL36COB3030IPROTECT	95+ CRI	White light with even spectrum distribution
FL36COB3030PLANTLIGHT	440-455 nm	Horticulture
FL36COB3030Hyperred650	650 nm	Horticulture
FL36COB303HIPURITY	95+ CRI	Bright sun light
FL36COB3030PLANTLIGHT	450 nm	Horticulture for germination
FL36COB3030Farred700	700 nm	Horticulture for flowering
FL36COB303SLEEPREGULATOR	455 nm	Medical (Therapy)
FL36COB3030GEMPROTECT	385 nm	Jewellery identification
FL36COB3030LIGHTUP	70+ CRI	General lighting
FL36COB3030INFRARED	850 nm	Medical (Therapy)

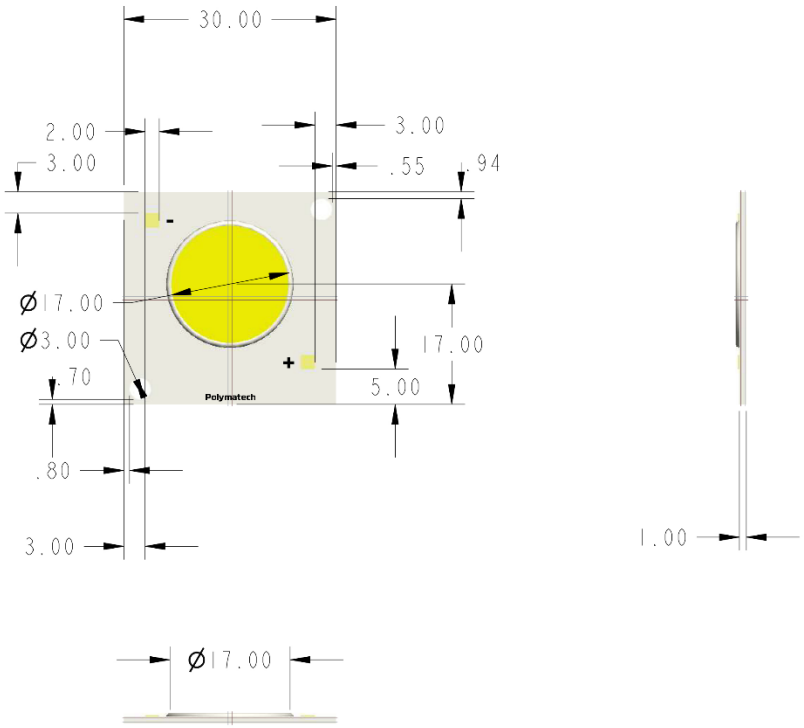
Notes

* Polymatech Electronics maintains a tolerance of ±10% on flux and power measurements, ±0.01 on chromaticity (CCx, CCy) measurements and a tolerance of ±4 on CRI measurements.

• FL36COB3030P order codes specify only a minimum flux bin and not a maximum. Polymatech Electronics may ship packages in flux bins higher than the minimum specified by the order code without advance notice.
Shipments will always adhere to the CRI restrictions specified by the order code.

Mechanical Dimensions

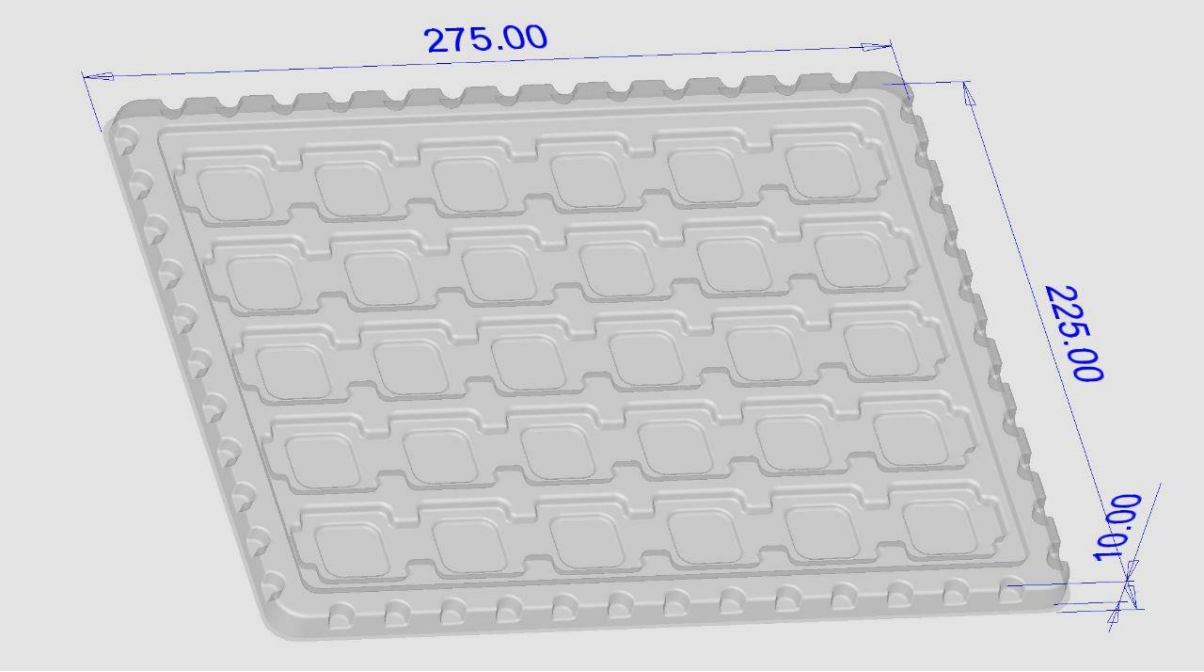
The COB dimensions are 30 X 30 mm.

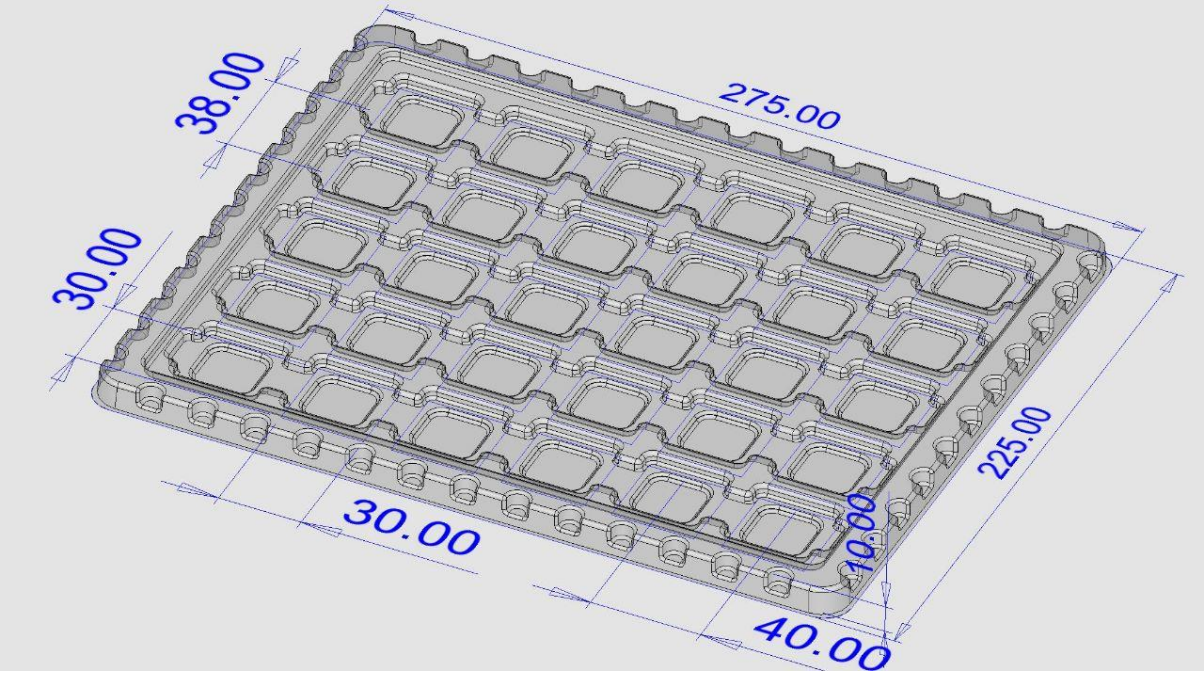


Dimensions are in mm.
Tolerances unless otherwise
specified: +.13
x° +1°

Packaging details

The package each tray contains 30 pieces of COBs and each box contains 10 trays of COBs (Vacuum Sealed).

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