



for

LED



GooLED

GooLED-OSR-7850 Pin Fin Heat Sink Φ 78mm for Osram

Features VS Benefits

- * The GooLED-OSR-7850 Osram Pin Fin LED Heat Sinks are specifically designed for luminaires using the Osram LED engines.
- * Mechanical compatibility with direct mounting of the LED engines to the LED cooler and thermal performance matching the lumen packages.
- * For spotlight and downlight designs from 1,200 to 3,500 lumen.
- * Thermal resistance range R_{th} 2.33°C/W.
- * Modular design with mounting holes foreseen for direct mounting of Osram LED engines.
- * Diameter 78.0mm - standard height 50.0mm, Other heights on request.
- * Forged from highly conductive aluminum.



Zhaga LED engine and radiator assembly is a unified future international standardization

- * Below you find an overview of Osram COB's and LED modules which standard fit on the Pin Fin LED Heat Sinks.
- * In this way mechanical after work and related costs can be avoided, and lighting designers can standardize their designs on a limited number of LED Pin Fin LED Heat Sink.

OSRAM

Opto Semiconductors



Osram LED Modules directly Mounting Options

Osram SOLERIQ® S 13 COB LED modules name:

- GW KAGGxx.xx; GW KAGLxx.xx;
- GW KAGHxx.xx; GW KAGMxx.xx;
- GW KAGJxx.xx;

With the Zhaga Book 3 Holders:

- BJB holder:47.319.2021.50;
- TE LED Holder:2213254-1;

Direct mounting with machine screws M3x6.5mm, green indicator marks.

Osram SOLERIQ® S 9 COB LED modules name:

- GW KAFGxx.xx;
- GW KAFHxx.xx;
- GW KAFJxx.xx;

With the Zhaga Book 11 Holders:

- BJB holder:47.319.6060.50;
- TE LED Holder:2213678-5;

Direct mounting with machine screws M3x6.5mm, Red indicator marks.

With the LEDiL products:

- Lenins series: CN14xxx; CN13xxx; CN12xxx;
- Ronda series: FN15xxx-xx;

Osram PrevaLED Core Z5, Z6, Z7 L15 H1 and AC PRO LED modules name:

- PL-CORE-Z5 -2000-xxx; PL-CORE-G7 2000-xxx L15 H1;
- PL-CORE-Z5 -3000-xxx; PL-CORE-G7 3000-xxx L15 H1;
- PL-CORE-Z6 -2000-xxx; PL-CORE AC PRO -2000-xxx;
- PL-CORE-Z6 -3000-xxx; PL-CORE AC PRO -3000-xxx;

With the Zhaga Book 3 standard:

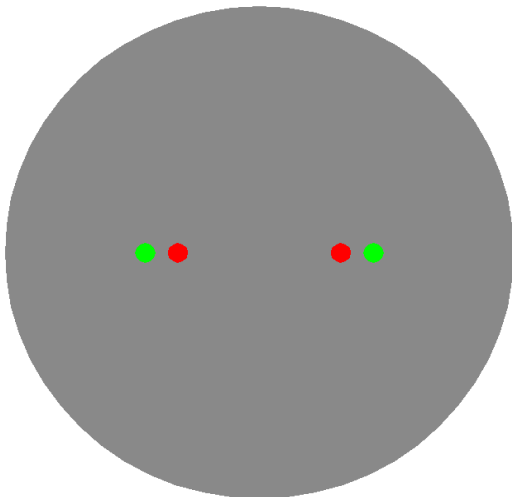
Direct mounting with machine screws M3x6.5mm, green indicator marks.

Osram PrevaLED Core Z6 Mini LED modules name:

- PL-CORE-Z6-MINI -2000-xxx;
- PL-CORE-Z6-MINI -3000-xxx;

With the Zhaga Book 11 standard:

Direct mounting with machine screws M3x6.5mm, Red indicator marks.



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Mounting Options and Drawings & Dimensions

Example:GooLED-OSR-7850-B-1,2

Example:GooLED-OSR-78 **1** - **2** - **3**

1 Height (mm)

2 Anodising Color

B-Black

C-Clear

Z-Custom

3 Mounting Options - see graphics for details Combinations available

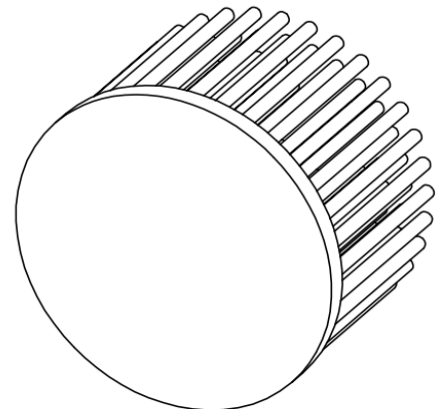
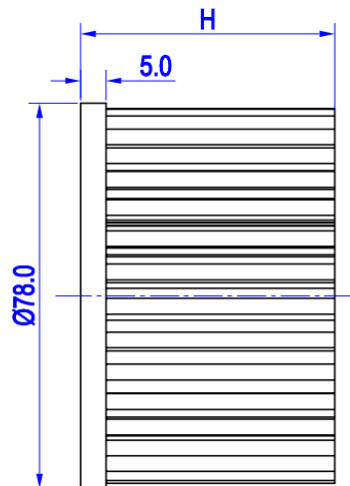
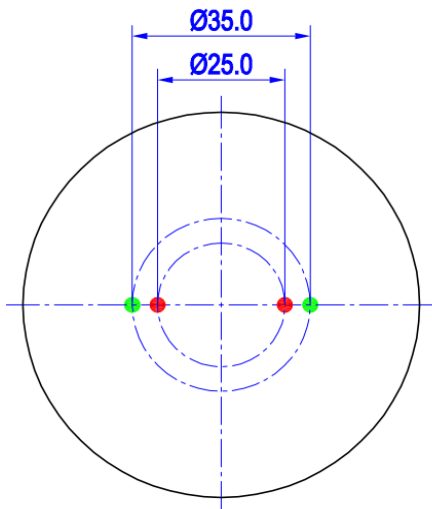
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means option 1 and 2 combined

Notes:

- Mentioned models are an extraction of full product range.
- For specific mechanical adaptations please contact MingfaTech.
- MingfaTech reserves the right to change products or specifications without prior notice.

MOUNTING OPTION	Module type	Holder NO.	LEDiL products		THREAD	THREAD DEPTH	THREAD HOLE DISTANCE
			Lenina series	Ronda series			
N	/	None	None	None	None	None	None
1	SOLERIQ® S 9	BJB Holder 47.319.6060.50 TE Holder 2213678-5	CN14xxx; CN13xxx; CN12xxx;	FN15xxx-xx	M3	6.5mm	25.0mm/ 2-@180° (Zhaga book 11)
	Z6 Mini	/	/	/			
2	Z5; Z6; Z7 L15 H1; AC PRO;	/	/	/	M3	6.5mm	35.0mm/ 2-@180° (Zhaga book 3)
	SOLERIQ® S 13	BJB Holder 47.319.2021.50 TE Holder 2213254-1	CN14xxx; CN13xxx; CN12xxx;	FN15xxx-xx			



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GooLED-OSR-7850 Pin Fin Heat Sink $\Phi 78\text{mm}$ for Osram

The product data table

	Model No.	GooLED-OSR-7850
	Heatsink Size	$\Phi 78 \times H 50\text{mm}$
	Heatsink Material	AL1070
	Finish	Black Anodized
	Weight (g)	197.0
	Dissipated power ($T_{hs-amb}, 50^\circ\text{C}$)	21.5 (W)
	Cooling surface area (mm^2)	75332
	Thermal Resistance (R_{hs-amb})	2.33 ($^\circ\text{C}/\text{W}$)

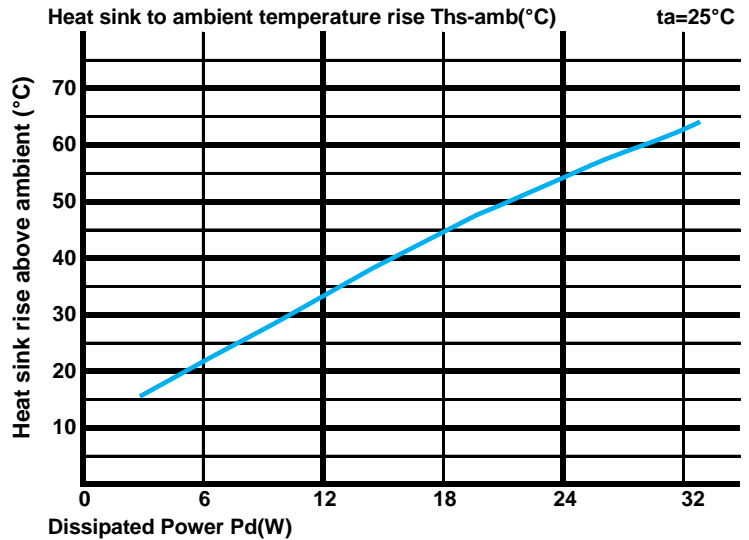
The thermal data table

* Please be aware the dissipated power P_d is not the same as the electrical power P_e of a LED module.

* To calculate the dissipated power please use the following formula: $P_d = P_e \times (1 - \eta_L)$.

P_d - Dissipated power ; P_e - Electrical power ; η_L = Light efficiency of the LED module;

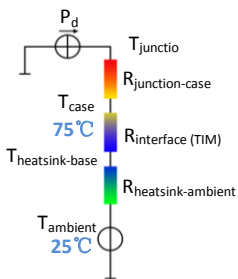
Dissipated Power P_d (W)	$P_d = P_e \times (1 - \eta_L)$	Heat sink to ambient thermal resistance R_{hs-amb} ($^\circ\text{C}/\text{W}$)	Heat sink to ambient temperature rise T_{hs-amb} ($^\circ\text{C}$)
		GooLED-OSR-7850	
6.0		3.50	21.0
12.0		2.67	32.0
18.0		2.44	44.0
24.0		2.25	54.0
32.0		1.97	63.0



*The aluminum substrate side of the package outer shell is thermally connected to the heat sink via TIM (Thermal interface material).

MingFa recommends the use of a high thermal conductive interface between the LED module and the LED cooler.

Either thermal grease, A thermal pad or a phase change thermal pad thickness 0.1-0.15mm is recommended.



*Thermal resistance is a heat property and a measurement of a temperature difference by which an object or material resists a heat flow.

Geometric shapes are different, the thermal resistance is different. Formula: $\theta = (T_{hs} - T_a) / P_d$

θ - Thermal Resistance [$^\circ\text{C}/\text{W}$]; T_{hs} - Heatsink temperature ; T_a - Ambient temperature ;

*The thermal resistance between the junction section of the light-emitting diode and the aluminum substrate side of the package outer shell is $R_{junction-case}$, the thermal resistance of the TIM outside the package is $R_{interface (TIM)}$ [$^\circ\text{C}/\text{W}$], the thermal resistance with the heat sink is $R_{heatsink-ambient}$ [$^\circ\text{C}/\text{W}$], and the ambient temperature is $T_{ambient}$ [$^\circ\text{C}$].

*Thermal resistances outside the package $R_{interface (TIM)}$ and $R_{heatsink-ambient}$ can be integrated into the thermal resistance $R_{case-ambient}$ at this point. Thus, the following formula is also used:

$$T_{junction} = (R_{junction-case} + R_{case-ambient}) \cdot P_d + T_{ambient}$$