

GooLED

GooLED-SEO-7850 Pin Fin Heat Sink Φ 78mm for Seoul

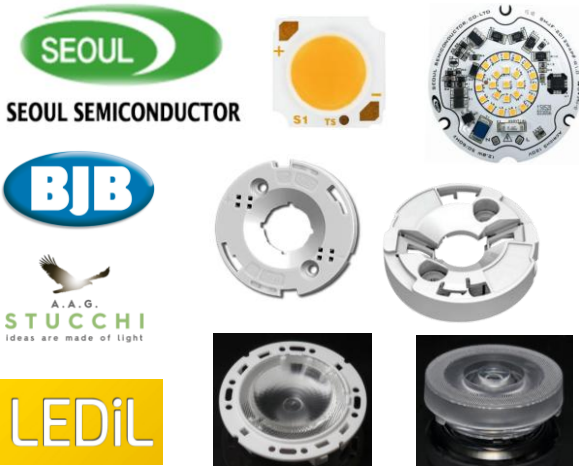
Features VS Benefits

- * The GooLED-SEO-7850 Seoul Pin Fin LED Heat Sinks are specifically designed for luminaires using the Seoul 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 Seoul COB series and AC Modules.
- * 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 Seoul 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.



Seoul LED Modules directly Mounting Options

Seoul COB Series, Size 28x28mm.

SDW04F1C;	SDW84F1C;
SDW05F1C;	SDW85F1C;
SDW06F1C;	SDW86F1C;
SAW822xxx;	SDW94F1C;
SAW922xxx;	

With the Zhaga Book 3 holders for the green indicator marks.
 BJB holder: 47.319.2030.50; AAG.STUCCHI: 8102-G2
 Without the holders for the blue indicator marks.
 Direct mounting with machine screws M3x6.5mm.

Seoul COB Series, Size 19x19mm.

SDW02F1C;	SDW82F1C;
SDW03F1C;	SDW83F1C;
SDW92F1C;	

With the Zhaga Book 3 holders for the green indicator marks.
 BJB holder: 47.319.2021.50; AAG.STUCCHI: 8101-G2
 Without the holders for the red indicator marks.
 Direct mounting with machine screws M3x6.5mm.

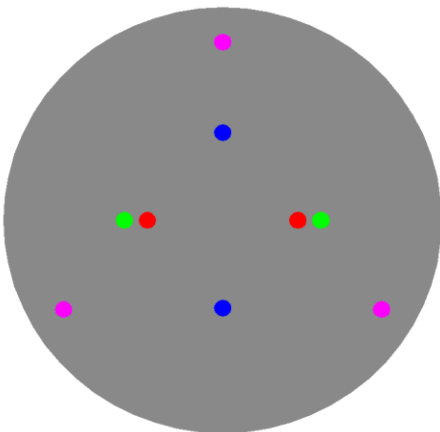
With the LEDiL products:

Olivia series: FN14637-S; FN14828-M;
 Ronda series: FN15xxx-xx;

AC LED Modules, Size Φ 70mm.

SMJD-2C16W4PD;	SMJD-2D16W4PD;
SMJD-2C16W4PE;	SMJD-2D16W4PE;
SMJD-2D12W4PD;	SMJD-3D12W4xx;
SMJD-2D12W4PE;	SMJD-3D16W4xx;

Direct mounting with 3 screws M2.5x6.5mm.
 Pink indicator marks.



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Mounting Options and Drawings & Dimensions

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

Example:GooLED-SEO-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

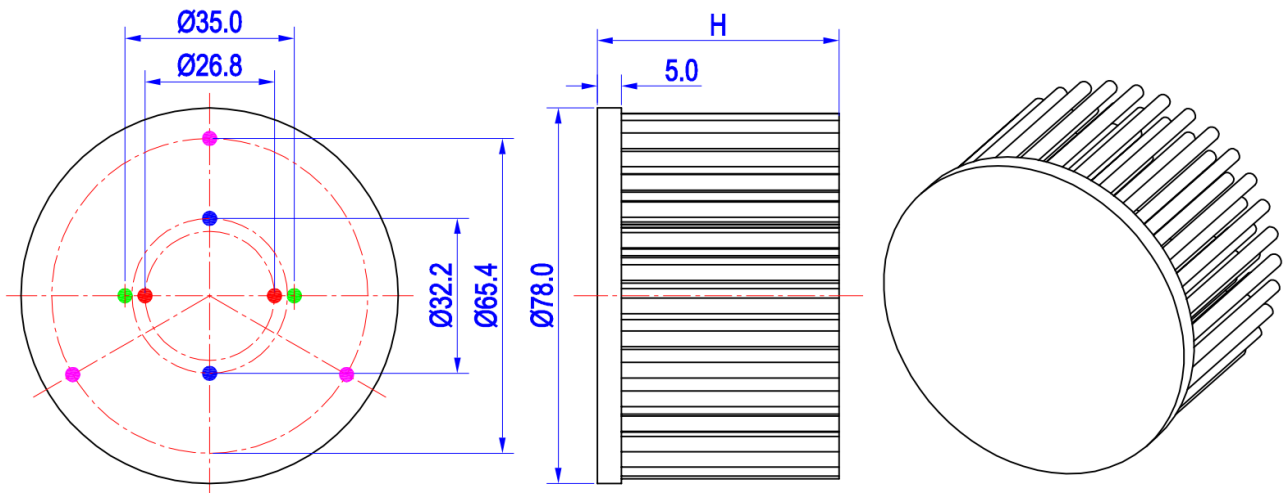
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means option 1 and 2 combined

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
			Olivia series	Ronda series			
1	COB Size 19x19mm	/	FN14637-S; FN14828-M;	FN15xxx-xx;	M3	6.5mm	26.8mm/ 2-@180°
2	COB Size 28x28mm	/	/	/	M3	6.5mm	32.2mm/ 2-@180°
3		BJB Holder 47.319.2030.50		/	/	M3	6.5mm
	AAG.STUCCHI 8102-G2	FN14637-S; FN14828-M;	FN15xxx-xx;				
4	AC Module	BJB Holder 47.319.2021.50	/	/	M3	6.5mm	65.4mm/ 3-@120°
		AAG.STUCCHI 8101-G2					



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The product data table

	Model No.	GooLED-SEO-7850
	Heatsink Size	Φ 78xH50mm
	Heatsink Material	AL1070
	Finish	Black Anodized
	Weight (g)	197.0
	Dissipated power (T_{hs-amb},50°C)	21.5 (W)
	Cooling surface area (mm²)	75332
	Thermal Resistance (R_{hs-amb})	2.33 (°C/W)

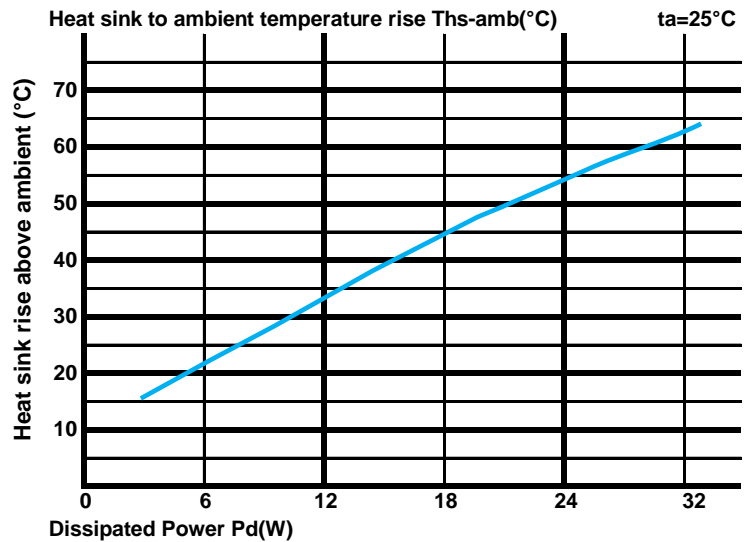
The thermal data table

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

*To calculate the dissipated power please use the following formula: Pd = Pe x (1-ηL).

Pd - Dissipated power ; Pe - Electrical power ; ηL = Light efficiency of the LED module;

Dissipated Power Pd(W)	Pd = Pe x (1-ηL)	Heat sink to ambient thermal resistance R _{hs-amb} (°C/W)	Heat sink to ambient temperature rise T _{hs-amb} (°C)
		GooLED-SEO-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: $\theta = (T_{\text{hs}} - T_{\text{a}}) / P_d$

θ - Thermal Resistance [°C/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)} [°C/W], the thermal resistance with the heat sink is R_{heatsink-ambient} [°C/W], and the ambient temperature is T_{ambient} [°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:

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