GooLED

GooLED-SAM-5850 Pin Fin LED Heat Sink Φ58mm for Samsung

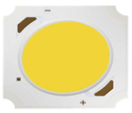
Features VS Benefits

* The GooLED-SAM-5850 Samsung Pin Fin LED Heat Sinks are specifically designed for luminaires using the Samsung 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 800 to 2,100 lumen.
* Thermal resistance range Rth 3.85°C/W.
* Modular design with mounting holes foreseen for direct mounting of Samsung LED engines.
* Diameter 58.0mm - standard height 50.0mm, Other heights on request.
* Forged from highly conductive aluminum.

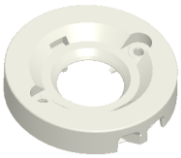
Zhaga LED engine and radiator assembly is a unified future international standardization

* Below you find an overview of Samsung 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.

SAMSUNG

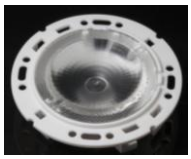


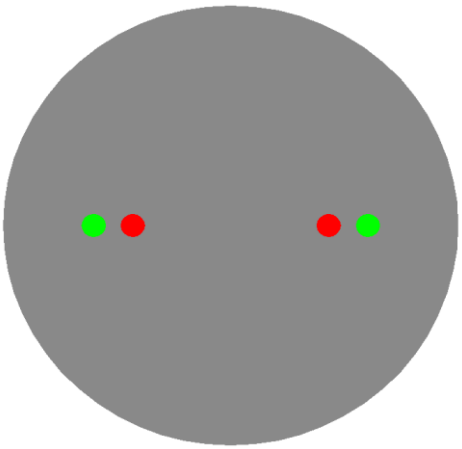
BJB



TE connectivity

LEDiL





Samsung LED Modules directly Mounting Options

Samsung B Series LED modules name:

L013B;
L019B;

With the Zhaga Book 11 holders for the red indicator marks.
BJB Holder: 47.319.6234.50;
Without the holders for the red indicator marks.
Direct mounting with machine screws M3x6.5mm.

Samsung D Series LED modules name:

LC003D; LC009D;
LC006D; LC013D;

With the Zhaga Book 11 holders for the red indicator marks.
BJB Holder: 47.319.6294.50;
TE LED Holder: 2213678-5;
Direct mounting with machine screws M3x6.5mm.

Samsung D Series LED modules name:

LC016D;
LC019D;
LC026D;

With the Zhaga Book 3 holders for the green indicator marks.
BJB Holder: 47.319.2021.50;
TE LED Holder: 2213254-1;
Direct mounting with machine screws M3x6.5mm.
With the LEDiL products:
Ronda series: FN15xxx;
Olivia series: FN14828-M; FN14637-S;

Samsung C Series LED modules name:

LC010C;
LC020C;

With the Zhaga Book 11 holders for the red indicator marks.
TE LED Holder: 2213118-2;
Direct mounting with machine screws M3x6.5mm.
With the LEDiL products:
Ronda series: FN15xxx;

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Mingfa TECH

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Mounting Options and Drawings & Dimensions

Example:GooLED-SAM-5850-B-1,2

Example:GooLED-SAM-58 1 - 2 - 3

1 Height (mm)

2 Anodising Color

B-Black

C-Clear

Z-Custom

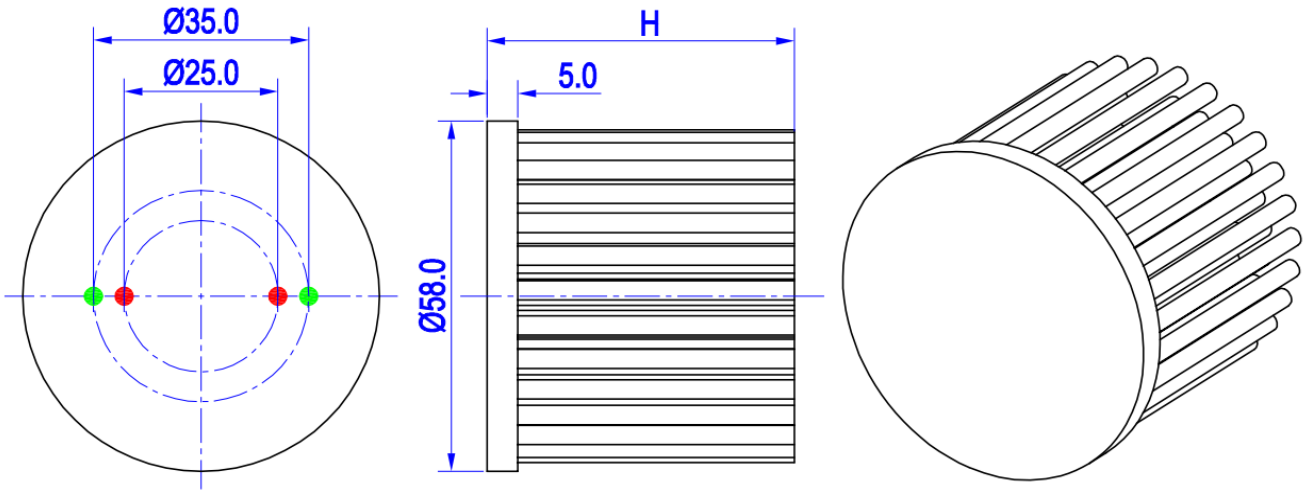
3 Mounting Options - see graphics for details Combinations available

Ex.order code - 12 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			
N	/	None	None	None	None	None	None
1	L010C; L020C;	TE Holder 2213118-2	/	FN15xxx;	M3	6.5mm	25.0mm/ 2-@180° (Zhaga book 11)
	L003D; L006D; L009D; L013D;	BJB Holder 47.319.6294.50	FN14828-M; FN14637-S;	/			
		TE Holder 2213678-5					
	L013B; L019B;	BJB Holder 47.319.6234.50	/				
2	L016D; L018D; L026D;	BJB Holder 47.319.2021.50	FN14828-M; FN14637-S;		M3	6.5mm	35.0mm/ 2-@180° (Zhaga book 3)
		TE Holder 2213254-1					



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The product deta table

Model No.	GooLED-SAM-5850
Heatsink Size	Φ58xH50mm
Heatsink Material	AL1070
Finish	Black Anodized
Weight (g)	108.0
Dissipated power (Ths-amb,50℃)	13.0 (W)
Cooling surface area (mm^2)	36775
Thermal Resistance (Rhs-amb)	3.85 (°C/W)

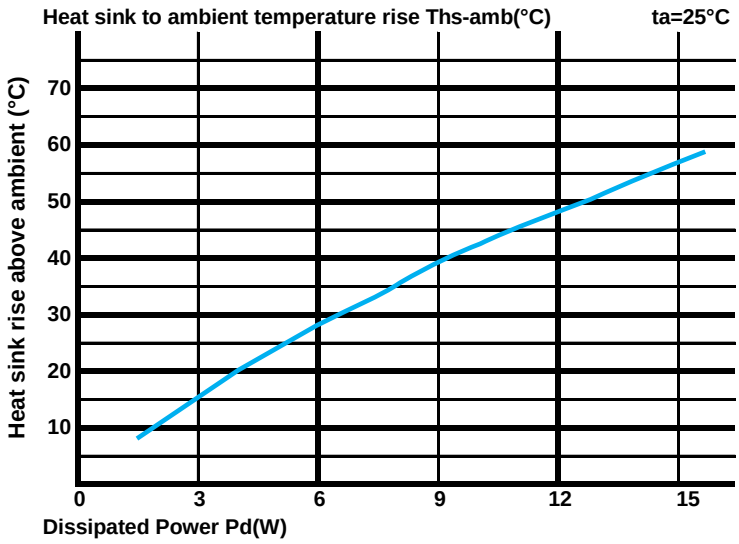
The thermal data table

* 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 effciency of the LED module;

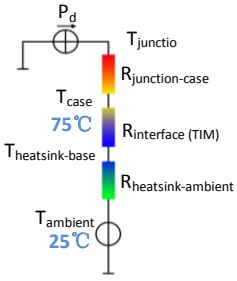
Pd = Pe x (1-ηL)		Heat sink to ambient thermal resistance Rhs-amb (°C/W)	Heat sink to ambient temperature rise Ths-amb (°C)
		GooLED-SAM-5850	
Dissipated Power Pd(W)	3.0	5.00	15.0
	6.0	4.67	28.0
	9.0	4.33	39.0
	12.0	4.00	48.0
	15.0	3.80	57.0



*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: θ =(Ths−Ta)/Pd

θ - Thermal Resistance [°C/W] ; Ths - Heatsink temperature ; Ta - 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:

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

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