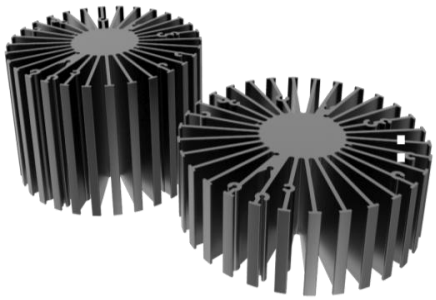
SimpoLED SimpoLED-135 Series Star Heat Sinks Φ135mm for COB Modular Product Brief

Features VS Benefits

* Mechanical compatibility with direct mounting of the LED modules to the LED cooler and thermal performance matching the lumen packages.
* Thermal resistance range Rth (0.79°C/W; 0.96°C/W; 1.04°C/W).
* Modular design with mounting holes foreseen for direct mounting of a wide range of LED modules and COB's:
* Diameter 135mm - Standard height 40.0mm / 50.0mm / 80.0mm , Other heights on request.
* Extruded from highly conductive aluminum.

2 standard colors - clear anodised - black anodised

Zhaga Book 3 Spot Light Modules Edison ,Xicato ,Bridgelux , Osram ,Citizen ,Lumileds ,Cree , Tridonic , Vossloh-Schwabe ,Seoul ,LG ,Lustrous ,Prolight ,Samung ,SHARP , Luminus .Philips



1) Xicato XSM, XIM,XTM;(XSA-309;XSA-310)
2) Bridgelux ESS, ESR, Vero 10, Vero 13,Vero 18,Vero 29 V-series;
3) Citizen CLL022-CLU024, CLL032-CLU034,CLL040-CLU044;
4) Cree XLamp CXA13xx, CXA15xx,CXA18,CXA25;
5) Lumileds Luxeon COB's 1203, 1204, 1205, Luxeon K arrays K12, K16;
6) LG Innotek LEMWM18 27W, 24W, 40W;
7) Seoul Semiconductor ZC25, ZC40,ZC60, ZC100 Series;
8) Tridonic TALEXXmodule SLE Modules engines;
9) Luminus C##14 ,C##22COB LED engines.
10) Edison EdiLex SLM and EdiLex II COB LED engines;
11) GE lighting Infusion™ LED Modules.
12) Prolight Opto PABS, PABA, PACB, PANA;
13) SHARP Tiger Zenigataand and Mega Zenigata LED engines;
14) Samsung COB LC026B,LC033B,LC040BCOB LED engines;
15) Vossloh-Schwabe Vossloh-Schwabe LUGA Shop LED engines;
16) OSRAM PrevaLED Core,SOLERIQ P,SOLERIQ E and SOLERIQ S LED engines;
17) Lustrous M series, LUSTRON series, Coral series,LUSTRON 5 6 series LED engines;
18) Philips Fortimo SLM,DLM LED engines.

Order Information

Example:SimpoLED-13550-B-

ample:SimpoLED-135 1 - 2 - 3

1 Hight (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

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.

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.

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SimpoLED **SimpoLED-135 Series Star Heat Sinks Φ135mm for COB Modular Product Brief**

The product deta table

Brand	**Mingfa Tech**		
Series Name	EtraLED star heat sinks		
Seriest Number	SimpoLED-135		
Manufacturing Technology	Aluminum extrusion		
Material	AL6063-T5		
Color & Finishing	Black Anodized		
Certification	CE, ROHS, WEEE		
Diameter(mm)	Φ135		
Height(mm)	40.0mm	50.0mm	80.0mm
Item Number	SimpoLED-13540 (XSA-311)	SimpoLED-13550	SimpoLED-13580
Max. Lumen	7000 lm	8000 lm	9200 lm
Dissipated Power (Ths-amb,50°C)	48.0 W	52.0 W	63.0 W
Thermal Resistance Rth（°C/W)	0.79° C/W	0.96 °C/W	1.04 °C/W
Cooling Surface Area (mm²)	52211.0 mm²	124084.0 mm²	194856.0 mm²
Net Weight (g)	510.0 g	638.0 g	1020.0 g
Quantity (pcs/CTN)	20 pcs	16 pcs	12 pcs
Modular Types	COB	COB	COB
For Environments	Indoor area		
For Lightings	Down lights,Architectural lights		
For Application	Retail & Hospitality,Mall & Food,Architectural & Museums,Office & Education, Station & Airport,Healthcare		
For LED brands	Adura,Bridgelux,BJB,Citizen,Cree,Edison,GE,LG,Lumileds,Lumens,Luminus,Ledil,Nichia, Osram,Philips,Prolight Opto,Samsung,Seoul,Sharp,Tridonic,Vossloh Schwabe,Xicato,Zhaga		

* 3D files are avaliable in ParaSolid, STP and IGS on request

* The thermal resistance Rth is determined with a calibrated heat source of 14mm×14mm central placed on the heat sink, Tamb 40° and an open environment. Reference data @ heat sink to ambient temperature rise Ths-amb 50°C
The thermal resistance of a LED cooler is not a fix value and will vary with the applied dissipated power Pd

* Dissipated power Pd. Reference data @ heat sink to ambient temperature rise Ths-amb 50°C
The maximal dissipated power needs to be verified in function of required case temperature Tc or junction temperature Tj and related to the estimated ambient temperature where the light fixture will be placed
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

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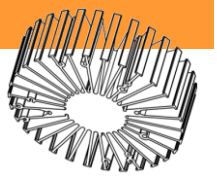
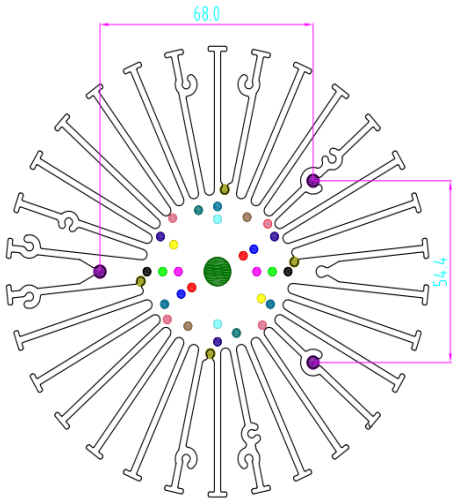
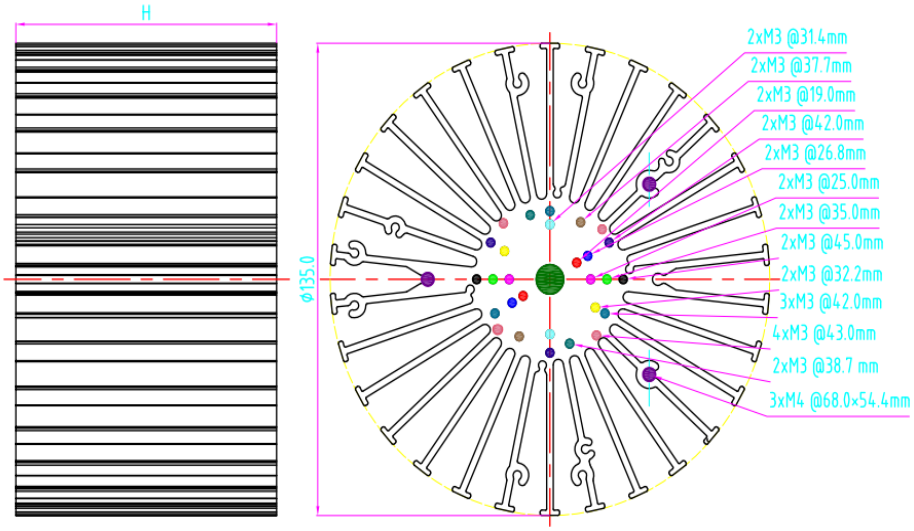
SimpoLED SimpoLED-135 Series Φ135mm COB Heat Sink Drawings

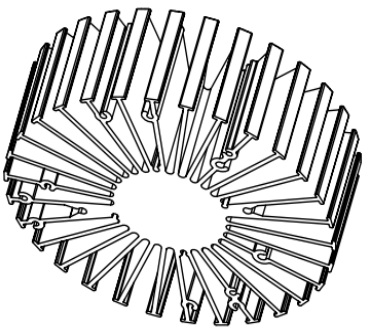


Drawings &Type Selection

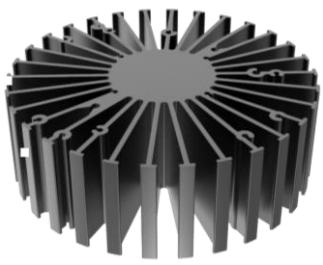


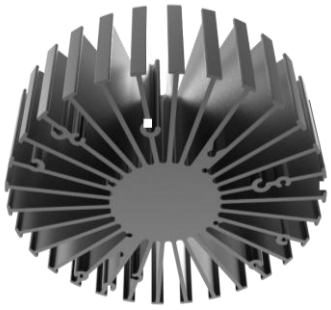
MOUNTING OPTION	THREAD HOLE DISTANCE
A1	19.0 mm @ 2-180°
A2	25.0 mm @ 2-180°
A3	26.8 mm @ 2-180°
A4	31.4 mm @ 2-180°
A5	32.2 mm @ 2-180°
A6	35.0 mm @ 2-180°
A7	37.7 mm @ 2-180°
A8	38.7 mm @ 2-180°
A9	39.0 mm @ 3-120°
A10	42.0 mm @ 3-120°
A11	43.0 mm @ 4-180°
A12	45.0 mm @ 2-180°
A13	Ø8.5 centre through-hole
A14	49.3 mm(2*102°-2*78°)
A15	68x54.4 (PHI-3PCS)

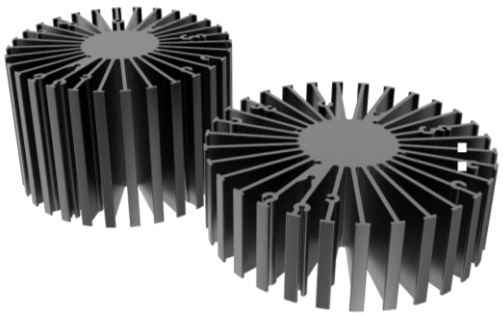




Product display







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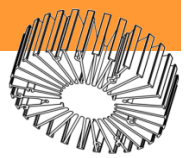
Mingfa TECH

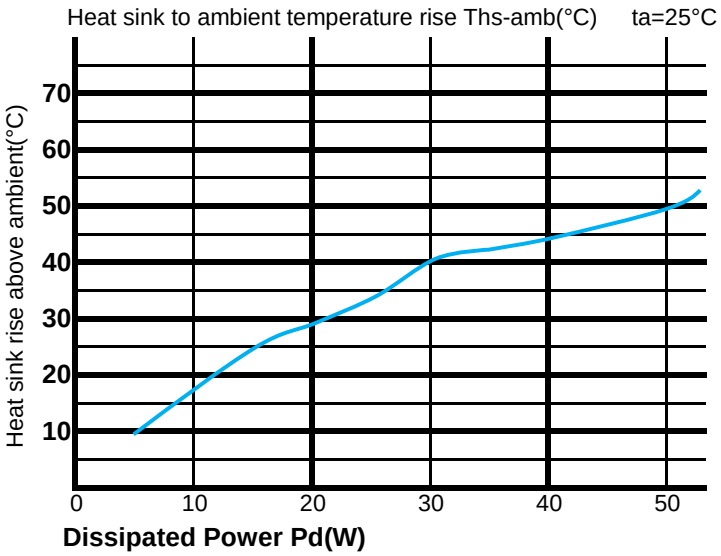
SimpoLED-135 Modular Passive LED Star Heat Sink Φ135mm



The thermal data table

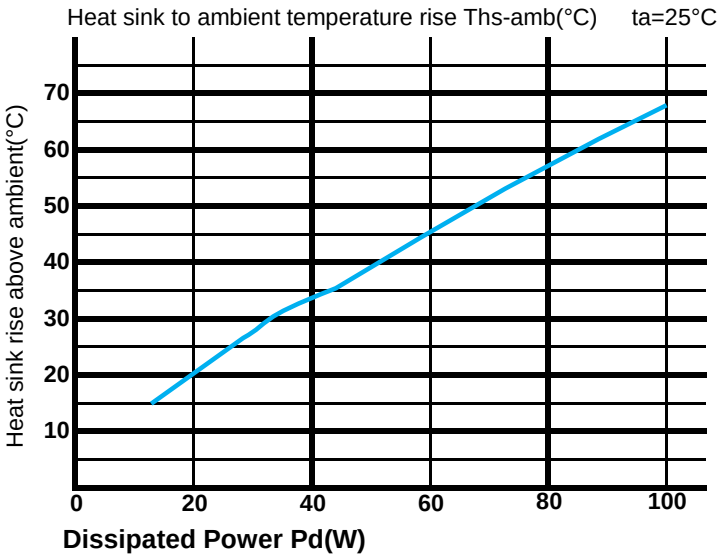
SimpoLED-13540 (XSA-311)thermal data

Pd = Pe x (1-ηL)		Heat sink to ambient thermal resistance Rhs-amb (°C/W)	Heat sink to ambient temperature rise Ths-amb (°C)
		SimpoLED-13540	SimpoLED-13540
Dissipated Power Pd(W)	15	1.8	27.0
	20	1.5	30.0
	25	1.4	35.0
	30	1.4	40.8
	35	1.2	42.0
	40	1.1	46.0
	45	1.1	49.5
	50	10.8	54.0



SimpoLED-13550 thermal data

Pd = Pe x (1-ηL)		Heat sink to ambient thermal resistance Rhs-amb (°C/W)	Heat sink to ambient temperature rise Ths-amb (°C)
		SimpoLED-13550	SimpoLED-13550
Dissipated Power Pd(W)	15	1.20	18.0
	30	1.00	30.0
	45	0.90	40.5
	60	0.82	49.2
	75	0.71	53.3
	90	0.68	61.2



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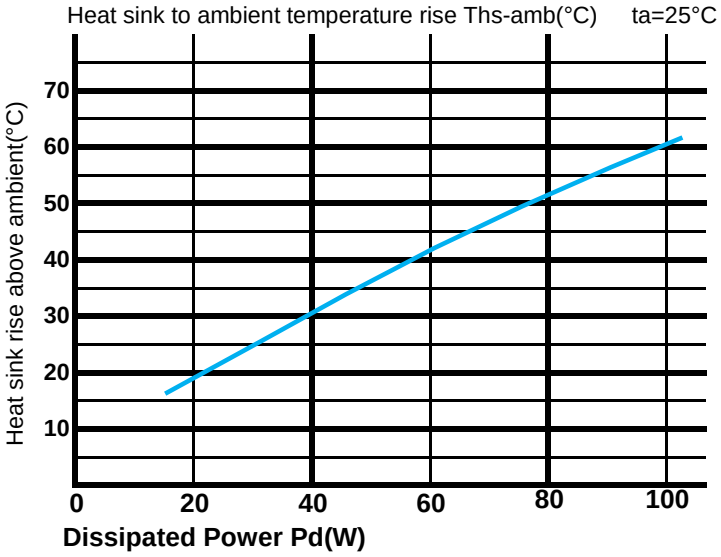
SimpoLED **SimpoLED-135 Series Φ135mm Material AL6063-T5 COB Star Heat Sinks Thermal Data**

The thermal data table

SimpoLED-13580 thermal data

Pd = Pe x (1-ηL)		Heat sink to ambient thermal resistance Rhs-amb (°C/W)	Heat sink to ambient temperature rise Ths-amb (°C)
		SimpoLED-13580	SimpoLED-13580
Dissipated Power Pd(W)	15	0.92	13.8
	30	0.88	26.4
	45	0.80	36.0
	60	0.75	45.0
	75	0.69	51.8
	90	0.59	53.1



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

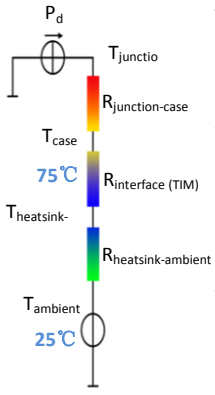
*To calculate the dissipated power please use the following formula: Pd = Pe x (1-ηL).

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

*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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