xLED

xLED-6050 Pin Fin Heat Sink Φ60mm

Features VS Benefits

* Mechanical compatibility with direct mounting of the LED modules to the LED cooler and thermal performance matching the lumen packages.
* For spotlight and downlight designs from 900 to 2,200 lumen.
* Thermal resistance range Rth 3.85°C/W.
* Modular design with mounting holes foreseen for direct mounting of a wide range of LED modules and COB's:
* Diameter 60.0mm - Standard height 50.0mm , Other heights on request.
* Forged from highly conductive aluminum.
* 2 standard colors - clear anodised - black anodised.
* Zhaga Book 3 Spot Light modules: Bridgelux ,Cree ,Citizen ,Edison ,GE lighting, LG Innotek ,Lumileds ,Lumens ,Luminus ,Nichia ,Osram ,Philips ,Prolight Opto, Samsung ,Seoul ,Tridonic ,Vossloh-Schwabe ,Xicato.

01) Bridelux: Vero 10/13 Vero SE 10/13 LED engines;
02) Cree: XLamp CXA 13xx, Xlamp CXB 15xx, CXA 18xx LED engines;
03) Citizen: CLU026, CLU028, CLU036, CLU038, CLU721, CLU711, CLU701 LED engines;
04) Edison: EdiLex III COB LED engines;
05) GE lighting: Infusion™ LED engines;
06) LG Innotek: 7W, 10W, 16W, W21 LED engines;
07) LumiLEDS: LUXEON 1202, LUXEON 1203 LED engines;
08) Lumens: Ergon-COB-15xx, 18xx LED engines;
09) Luminus: CXM-6-AC, CIM/CLM/CXM-9 -A LED engines;
10) Nichia: NVxxx024Z, NVxxx036Z LED engines;
11) Osram: SOLERIQ® S 9/S13, Z6 Mini LED engines;
12) Philips: Fortimo SLM LED engines;
16) Prolight Opto: PACJ-7xxx-xxxx, PACJ-14xxx-xxxx, PACJ-21xxx LED engines;
13) Samsung: L010C, L020C, L003D, L006D, L009D, L013D LED engines;
14) Seoul Semiconductor: Acrich MJT COBs, DC COB LED engines;
15) Tridonic: SLE G6 10mm, SLE G6 15mm LED engines;
17) Vossloh-Schwabe: LUGA Shop and LUGA C LED engines;
18) Xicato: XTM LED engines;

Order Information

Example:xLED-6050-B

Example:xLED-6050-1

1 Anodising Color
B-Black
C-Clear
Z-Custom

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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The product deta table

Model No.	**xLED-6050**
Heatsink Size	**Φ60xH50mm**
Heatsink Material	**AL1070**
Finish	**Black Anodized**
Weight (g)	**112.0**
Dissipated power (Ths-amb,50℃)	**13.0** (W)
Cooling surface area (mm^2)	**68473**
Thermal Resistance (Rhs-amb)	**3.85** (°C/W)

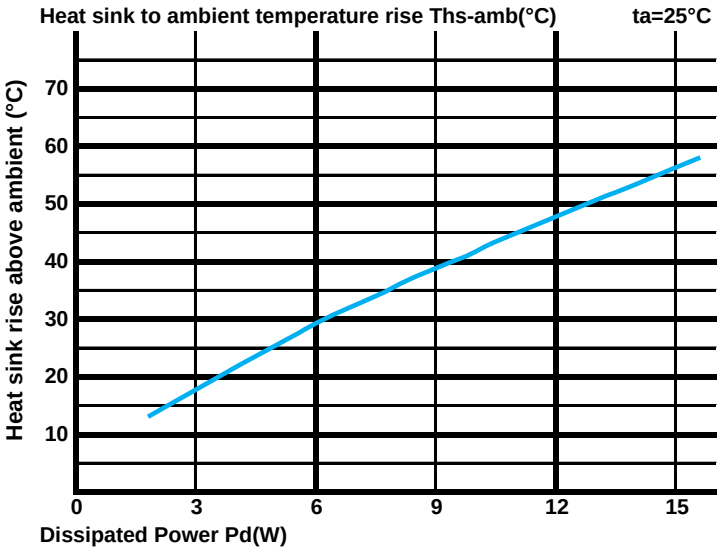
The thermal data table

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

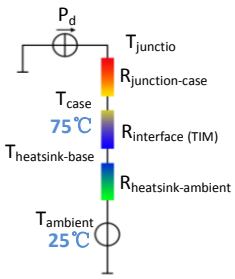
*To calculate the dissipated power please use the following formula: Pd = Pe x (1-ηL).

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)
		xLED-6050	
Dissipated Power Pd(W)	3.0	5.67	17.0
	6.0	4.83	29.0
	9.0	4.22	38.0
	12.0	4.00	48.0
	15.0	3.73	56.0



*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 Geometric shapes are different, the thermal resistance is different. Formula: θ =(Ths−Ta)/Pd
θ - Thermal Resistance [°C/W] ; Ths - Heatsink temperature ; Ta - Ambient

*The thermal resistance between the junction section of the light-emitting diode and the aluminum substrate side of the shell is $R_{junction-case}$, the thermal resistance of the TIM outside the package is $R_{interface\ (TIM)}$ [°C/W], the thermal resistance with 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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