

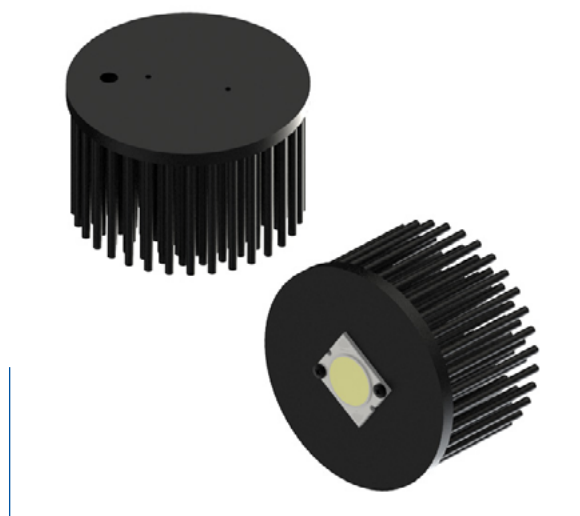
MechaTronix in LED

LPF8050-BRI-ESR Bridgelux LED ES Square Array Heat Sink ø80mm



Features & Benefits

- Designed for Bridgelux LED ES Square Array
- Diameter 80mm base – height 50mm
- Thermal resistance Rth 1.7°C/W
- Required Rth according Bridgelux datasheets at Tamb 40°C
 - BXRA-XX2000/2200/2600:1.93°C/W (Tc105°)
- Specific mounting pattern 2xM2.5 + cable guidance hole



Order Information

Example: LPF8050-BRI-ESR-B-1

LPF8050-BRI-ESR-**A**-**B**

A Finishing - "B" - Black Anodised
"C" - Clear Anodised
"Z" - Custom (specify)

B Mounting Options - see graphics for details
Combinations available

Ex. order code - 13
means option 1 and 3 combined

MOUNTING OPTION	THREAD	THREAD DEPTH
NONE/BLANC	NONE	NONE
1	M8x1	5mm
2	5/16-24 UNC	0.197"
3	M50x2	Base contour



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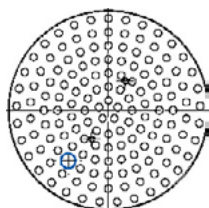
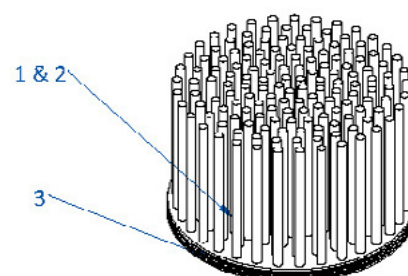
Product Details

	Total Height mm	Rth(°C/W)	Volume mm ³	Cooling Surface mm ²	Weight gr
LPF8050	50.00	3.5	72353.22	74591.77	195.35

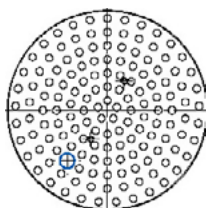
Mounting Options

Notes:

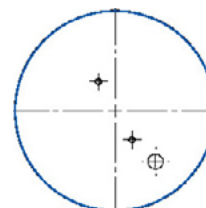
1. MechaTronix reserves the right to change products or specifications without prior notice.
2. Mentioned models are an extraction of the full product range. For specific mechanical adaptations please contact MechaTronix.
3. All these types are made by forge process from highly conductive aluminum type AL1070 with a typical Thermal Conductivity of 209W/m-K.



- 1** Mechanical version
Cable hole tapping
M8X1
Depth: 5mm



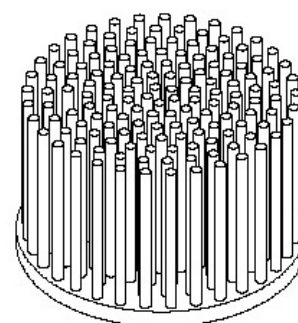
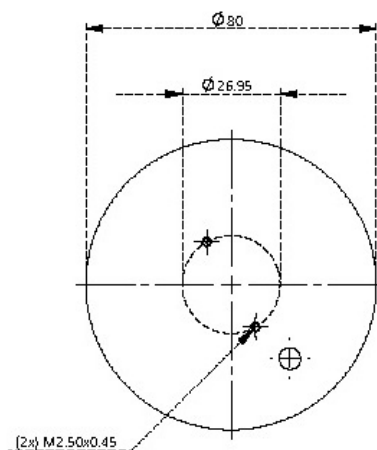
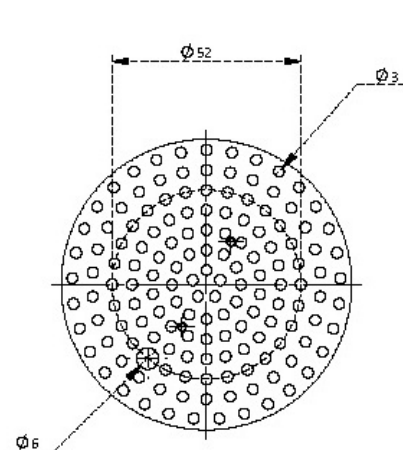
- 2** Mechanical version
Hole tapping
5/16-24 UNC
Depth: 0.197"



- 3** Mechanical version
M50x2
Screw thread around
base contour

Drawings & Dimensions

Example: LPF8050-BRI-ESR-B-N



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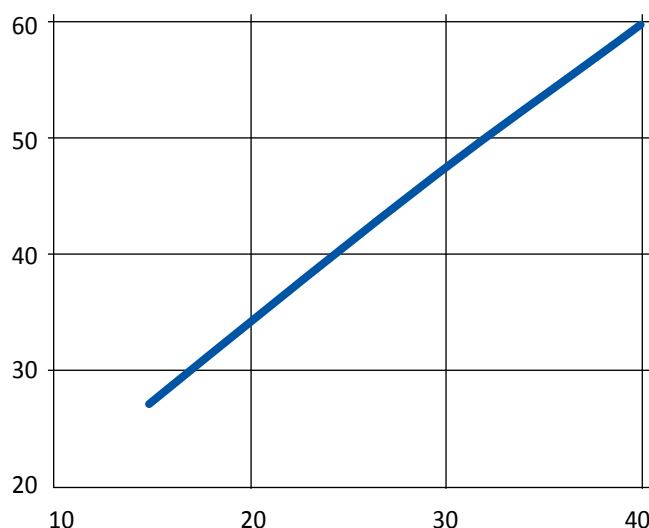
Thermal Data

Heat sink base to ambient thermal resistance, R_{hs-amb} [K/W]

Power (W)	LPF8050-BRI-ESR-Black
15	1.8
17	1.8
20	1.7
25	1.6
30	1.6
40	1.5
$R_{th Av.}$	1.7

Heat sink to ambient temperature difference [°C]

— LPF8050-BRI-ESR-Black



Spreading resistance, R_{sp} [K/W]

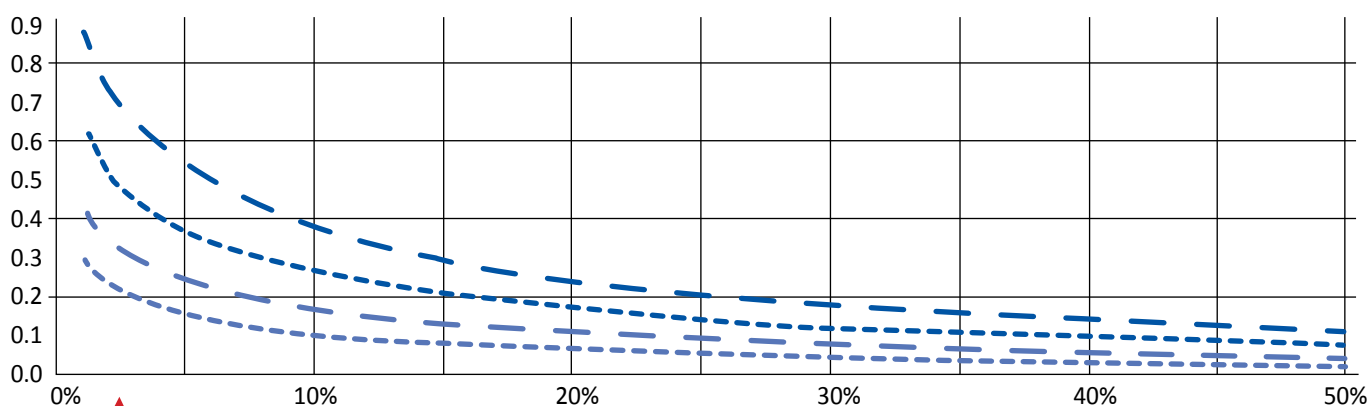
Base thickness		t=2mm	t=3mm	t=5mm	t=10mm
Ratio of light engine (LE) area over heat sink base area, ALE/A _{hs} [%]	1%	0.87	0.61	0.41	0.30
	3%	0.68	0.47	0.30	0.20
	5%	0.54	0.37	0.24	0.15
	8%	0.44	0.30	0.19	0.12
	11%	0.36	0.24	0.15	0.09
	20%	0.24	0.17	0.10	0.06
	32%	0.16	0.11	0.07	0.04
	62%	0.06	0.04	0.03	0.01

Power [W]

Heat sink base spreading resistance, R_{sp} [K/W], based on base thickness, t

Spreading resistance, R_{sp} [K/W]

— t=2mm — t=3mm — t=5mm — t=10mm



Ratio of light engine (LE) area over heat sink base area, ALE/A_{hs} [%]