

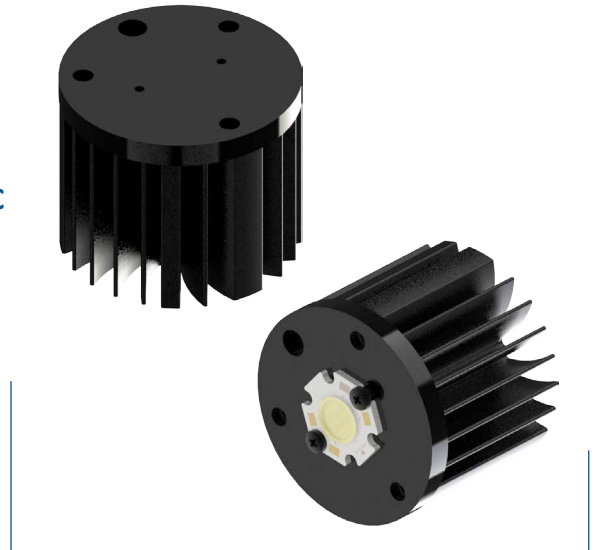
MechaTronix in LED

LSB5040-BRI-ESS Bridgelux LED ES Star Array Heat Sink ø50mm



Features & Benefits

- Designed for Bridgelux LED ES Star Array
- Diameter 50mm base – height 40mm
- Thermal resistance Rth heat sink 6.5°C/W
- Required Rth according Bridgelux datasheets at T°amb 40°C
 - BXR-B-XX0540/0700:7.58°C/W (Tc105°)
 - BXR-B-XX0740/1000:6.86°C/W (Tc85°)
- Specific mounting pattern 2xM2.5 + cable guidance hole



Order Information



Example : LSB5040-BRI-ESS-B-1

LSB5040-BRI-ESS - **1** - **2**

- 1** Anodising color
 "B" - Black Anodised
 "C" - Clear Anodised
 "Z" - Custom (specify)
- 2** 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	M8 x 1	5mm MIN.
2	#5/16-24 UNC	0.197" MIN.
3	M50 x 2	Base contour

MechaTronix in LED

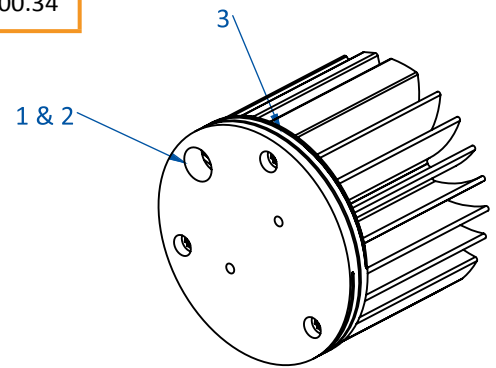
LSB5040-BRI-ESS Bridgelux LED ES Star Array Heat Sink $\phi 50\text{mm}$



Product Details

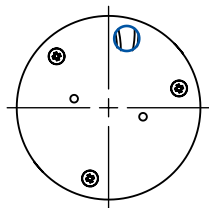
	Total Height ^{mm}	Rth($^{\circ}\text{C}/\text{W}$)	Volume ^{mm³}	Cooling Surface ^{mm²}	Weight ^{gr}
LSB5040-BRI-ESS	40.00	6.5	37164.37	29520.43	100.34

Mounting Options



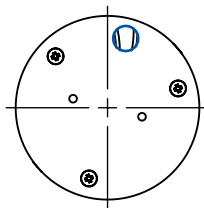
Notes:

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 forging process from highly conductive aluminum type AL6063 T5 with a typical Thermal Conductivity of 209W/m-K.



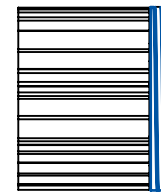
1 Mechanical version
Cable hole tapping

M8x1
Depth: 5mm



2 Mechanical version
Hole tapping

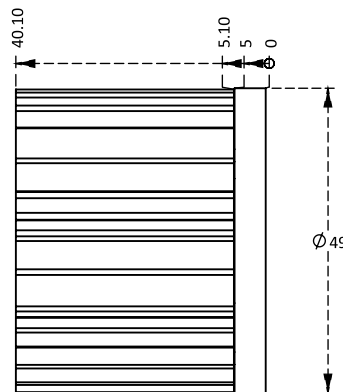
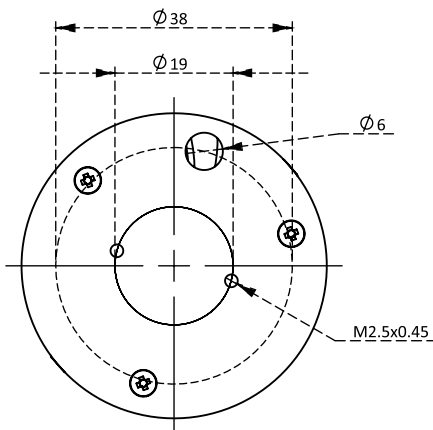
5/16-24 UNC
Depth: 0.197"



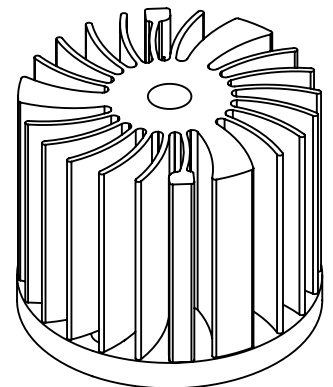
3 Mechanical version
M50x2

Screw thread around
base contour

Drawings & Dimensions



Example : LSB5040-BRI-ESS



MechaTronix in LED

LSB5040-BRI-ESS Bridgelux LED ES Star Array Heat Sink ϕ 50mm



Thermal Data

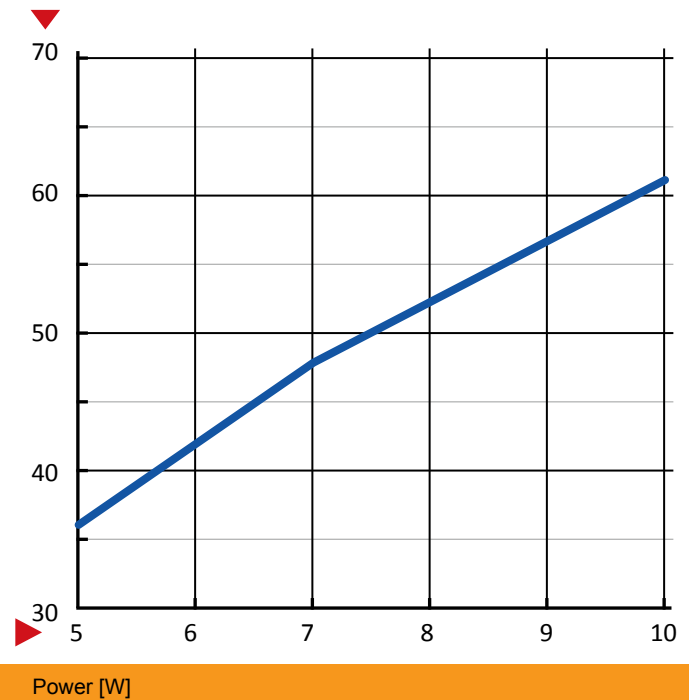
Heat sink base to ambient thermal resistance, R_{hs-amb} [K/W]

Power (W) LSB5040-BRI-ESS

5	7.3
7	6.7
10	6.1
Rth Av.	6.5

Heat sink to ambient temperature difference [$^{\circ}$ C]

— LSB5040-BRI-ESS



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

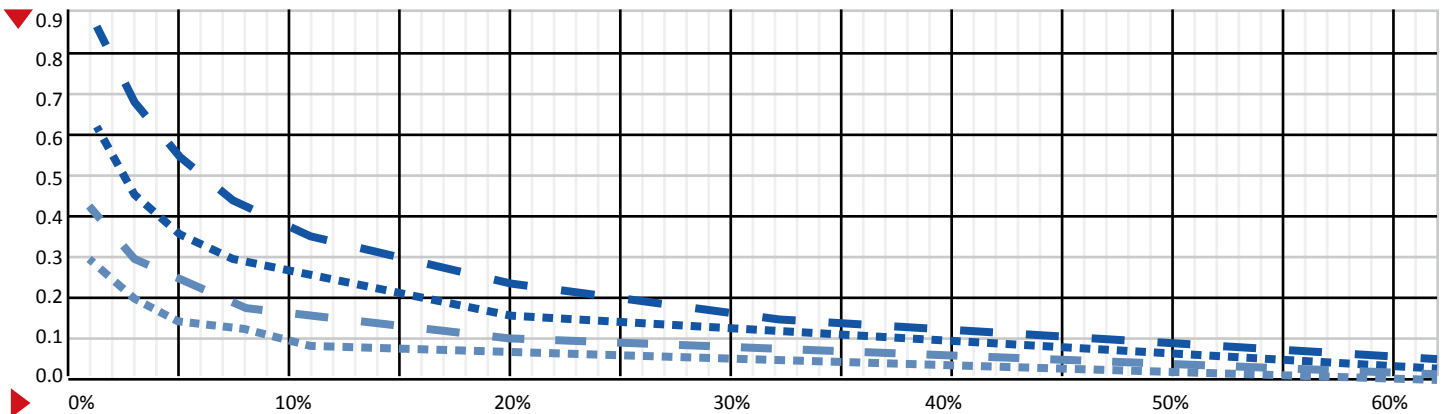
Base thickness t=2mm t=3mm t=5mm t=10mm

Ratio of light engine (LE) area over heat sink base area, ALE/Ahs [%]	t=2mm	t=3mm	t=5mm	t=10mm	
	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

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/Ahs [%]