

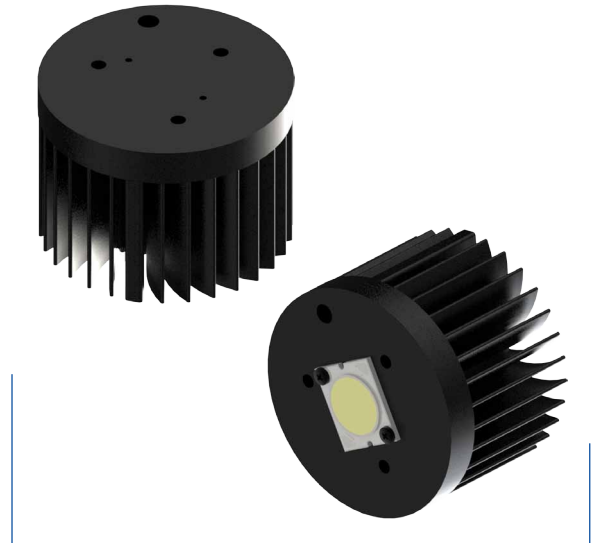
# MechaTronix in LED

LSB7050-BRI-ESR Bridgelux LED ES Square Array Heat Sink  $\phi$ 70mm



## Features & Benefits

- Designed for Bridgelux LED ES Square Array
- Diameter 70mm base – height 50mm
- Thermal resistance Rth 5.0°C/W
- Required Rth according Bridgelux datasheets at Tamb 40°C  
- BXRA-XX1200/1350/1600:3.68°C/W (Tc105°)
- Specific mounting pattern 2xM2.5 + cable guidance hole



## Order Information



Example : LSB7050-BRI-ESR-B-1

LSB7050-BRI-ESR - **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

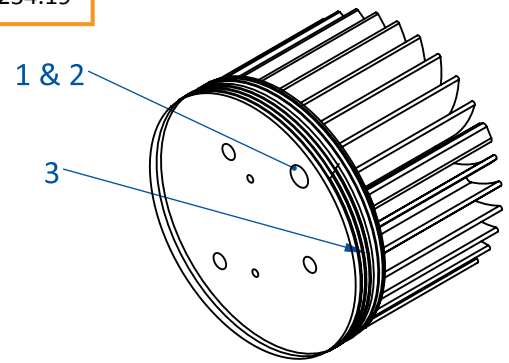
## LSB7050-BRI-ESR Bridgelux LED ES Square Array Heat Sink $\phi 70$ mm



### Product Details

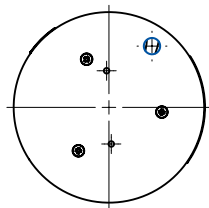
	Total Height <sup>mm</sup>	Rth(°C/W)	Volume <sup>mm<sup>3</sup></sup>	Cooling Surface <sup>mm<sup>2</sup></sup>	Weight <sup>gr</sup>
LSB7050-BRI-ESR	50.00	5.0	94427.53	68947.15	254.19

### Mounting Options



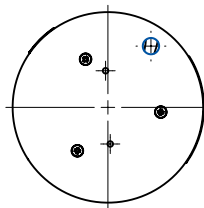
#### Notes:

- MechaTronix reserves the right to change products or specifications without prior notice.
- Mentioned models are an extraction of the full product range. For specific mechanical adaptations please contact MechaTronix.
- All these types are made by forging process from highly conductive aluminum type AL6063 T5 with a typical Thermal Conductivity of 209W/m-K.



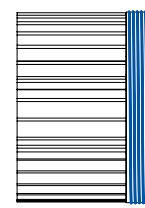
**1** Mechanical version  
Cable hole tapping

M8x1  
Depth: 5mm



**2** Mechanical version  
Hole tapping

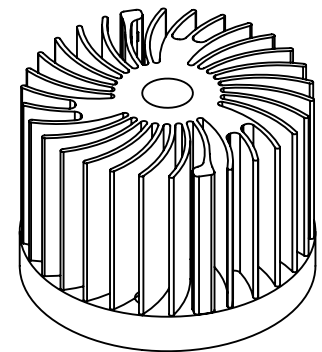
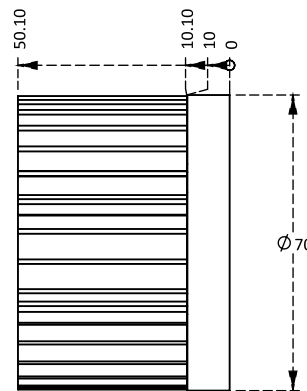
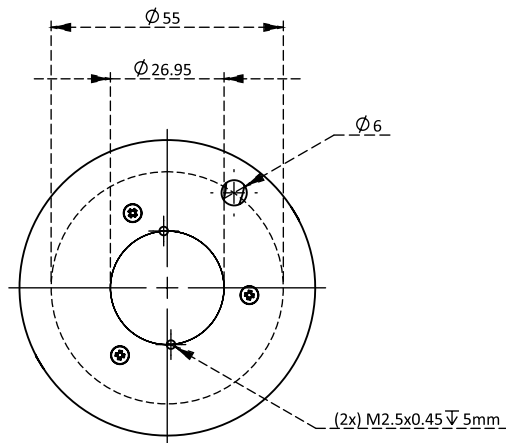
5/16-24 UNC  
Depth: 0.197"



**3** Mechanical version  
M50x2

Screw thread around  
base contour

### Drawings & Dimensions



### Example : LSB7050-BRI-ESR

# MechaTronix in LED

## LSB7050-BRI-ESR Bridgelux LED ES Square Array Heat Sink $\phi$ 70mm



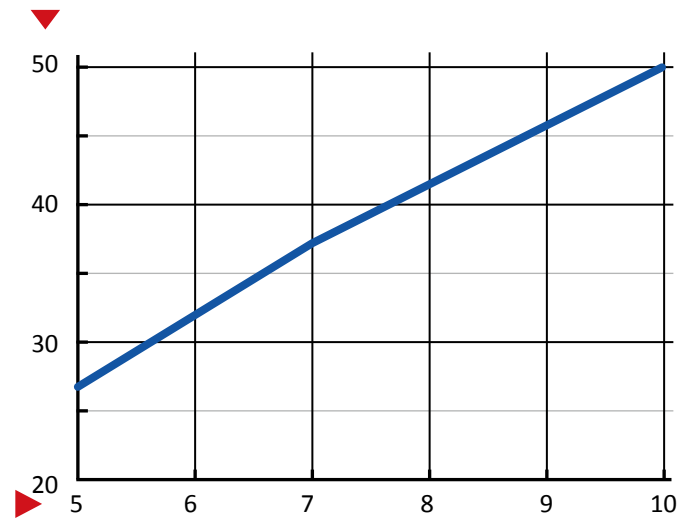
### Thermal Data

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

Power (W)	LSB7050-BRI-ESR
5	5.6
7	5.3
10	5.0
Rth Av.	5.0

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

— LSB7050-BRI-ESR



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

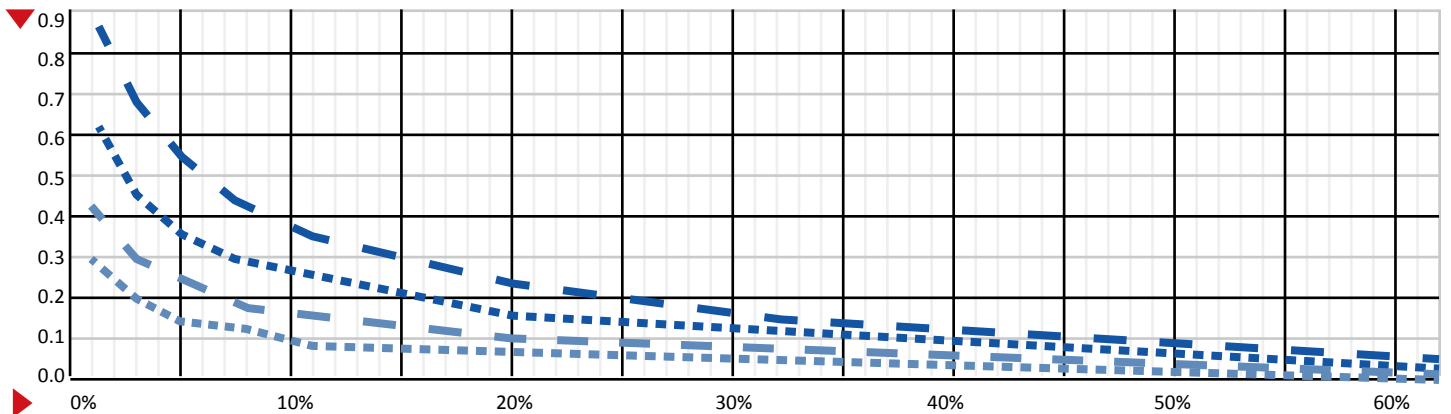
Base thickness	Ratio of light engine (LE) area over heat sink base area, ALE/Ahs [%]	t=2mm	t=3mm	t=5mm	t=10mm
		1%	0.87	0.61	0.41
	3%	0.68	0.47	0.30	0.20
	5%	0.54	0.37	0.24	0.15
	8%	0.44	0.30	0.19	0.12
	11%	0.36	0.24	0.15	0.09
	20%	0.24	0.17	0.10	0.06
	32%	0.16	0.11	0.07	0.04
	62%	0.06	0.04	0.03	0.01

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/Ahs [%]