

3W or 5W Emitter on
Standard MCPCB Option





















LZ1-1xxx0x



Key Features

- Typical Thermal Resistance for MCPCB adds only 2°C/W
- Multiple mounting and attachment options
- MCPCB contains Zener Diode for ESD protection

Available Products

| Colors | 3W Part Number | Emitter Link | 5W Part Number | Emitter Link |
|---------------|-------------------|---|-------------------|---|
| Red | LZ1-10R103 |  | LZ1-10R105 |  |
| Deep Red | n/a |  | LZ1-10R205 |  |
| Green | LZ1-10G103 |  | LZ1-10G105 |  |
| Blue | LZ1-10B203 |  | LZ1-10B205 |  |
| Amber | LZ1-10A103 |  | LZ1-10A105 |  |
| Cool White | LZ1-10CW03 |  | LZ1-10CW05 |  |
| Neutral White | LZ1-10NW03 |  | LZ1-10NW05 |  |
| Warm White | LZ1-10WW03 |  | LZ1-10WW05 |  |
| Dental Blue | n/a |  | LZ1-10DB05 |  |
| UV | n/a |  | LZ1-10UA05 |  |

[Click on Emitter Link for emitter data sheet.](#)

Description

The LZ1-1xxx0x Standard MCPCB option provides a convenient method to mount LedEngin's 3W or 5W emitters. The six recessed features allow the use of M3 or #4 screws to attach the MCPCB to a heat sink. The MCPCB has three sets of "+" (Anode) and "-" (Cathode) solder pads for electrical connections. The MCPCB also contains a Zener diode for enhanced ESD protection.

R_{θJ-B} Lookup Table

Table 1:

| Product | Emitter R _{θJ-C} | + | MPCPB R _{θC-B} | = | Emitter + MPCPB R _{θJ-B} |
|---------|------------------------------|---|----------------------------|---|---|
| 3W | 11°C/W | + | 2°C/W | = | 13°C/W |
| 5W | 5.5°C/W | + | 2°C/W | = | 7.5°C/W |

Note for Table 1:

- R_{θJ-B} is the combined thermal resistance from the LED die junction to the Aluminum core on MPCPB (R_{θJ-C} + R_{θC-B} = R_{θJ-B}).

Emitter on Standard MPCPB Dimensions (mm)

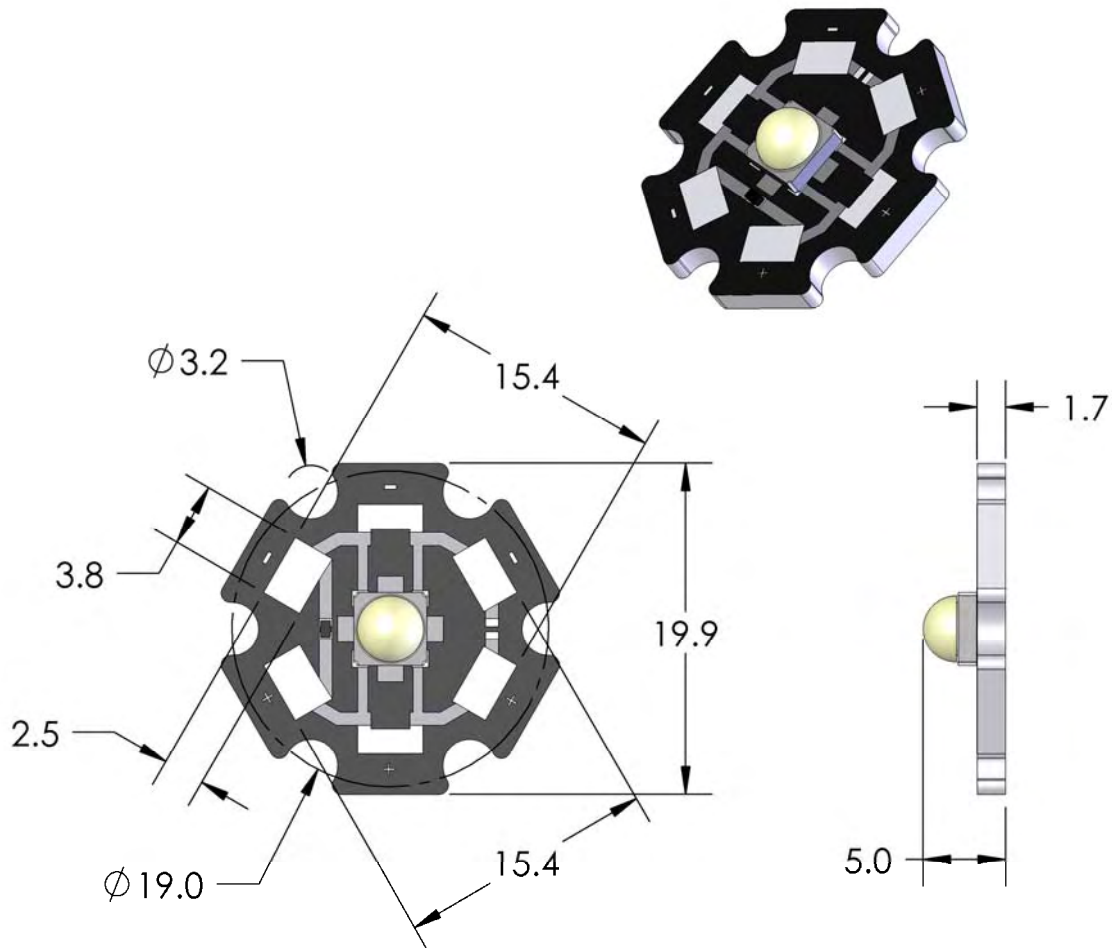


Figure 1: Standard MPCPB outline dimensions (mm).

Note for Figure 1:

- Unless otherwise noted, the tolerance = ± 0.2 mm.
- Slots in MPCPB are for M3 or #4 mounting screws.
- LedEngin recommends plastic washers to electrically insulate screws from solder pads and electrical traces.
- Electrical connection pads on MPCPB are labeled “+” for Anode and “-” for Cathode.
- LedEngin recommends using thermally conductive tape or adhesives when attaching MPCPB to a heat sink.

Company Information

The LZ1-1xxx0x LED emitter on MCPCB is developed, manufactured, and marketed by LedEngin, Inc., located in Santa Clara, CA. LedEngin is a global leader in advanced high-power LED emitters and light-source modules. LedEngin provides total solutions from 3W to 15W in single packages with ultra-small footprints in all colors from Cool White, Neutral White, Warm White, Red, Green, Blue, Amber, RGB, RGBA, Deep Red, Dental Blue and UV. LedEngin supports customers to generate solid-state lighting designs that conserve natural resources. LedEngin is focused on differentiated Ultra High-Brightness LED solutions for diverse global markets using its patent-pending package designs and manufacturing processes. LedEngin offers catalog as well as full custom solutions to enable flexible system designs for its customers. LedEngin is dedicated to long-term win-win partnering with its customers and suppliers.

LedEngin reserves the right to make changes to improve performance without notice.

Please contact Sales@ledengin.com or (408) 492-0620 for more information.

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