

## Peak Emission Wavelengths: 450nm, 460nm, 470nm, 527nm

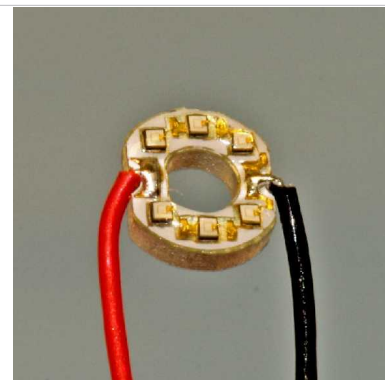
The MTLR-EZ500-xxx miniature light ring is specifically designed for applications requiring high radiant power output in an extremely small circular footprint.

### FEATURES

- > EZBright Power Chip LED Rf Performance
- > High Reliability
- > Ring Size: 0.165" Outer Diameter

### APPLICATIONS

- > Analytical Instruments for Bio Chemical, Medical and Scientific Analysis
- > General Illumination
- > Endoscopy



## Absolute Maximum Ratings (Ta=25°C)



| ITEMS                    | SYMBOL | RATINGS    | UNIT |
|--------------------------|--------|------------|------|
| Forward Current          | IF     | 75         | mA   |
| Operating Temperature    | Topr   | -40 ~ +100 | °C   |
| Storage Temperature      | Tstg   | -40 ~ +120 | °C   |
| LED Junction Temperature | Tj     | 145        | °C   |

Recommended operating current is 60mA maximum.

**\*The Light Ring should be properly heat sunked for thermal dissipation.**

**\*\*Maximum ratings are Package-dependent.**

## Electrical & Optical Characteristics (Ta = 25°C)

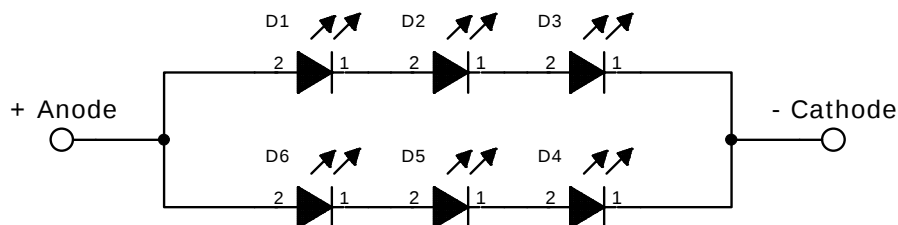
| ITEMS                      | SYMBOL | WAVELENGTH | CONDITIONS | MIN. | TYP | MAX. | UNIT |
|----------------------------|--------|------------|------------|------|-----|------|------|
| Forward Voltage*           | VF     |            | IF=75mA    | --   | 8.0 | 10.0 | V    |
| Radiant Flux <sup>1</sup>  | Φe     | 450        | IF=75mA    | 330  | --  | 450  | mW   |
| Radiant Flux <sup>2</sup>  | Φe     | 460        | IF=75mA    | 330  | --  | 450  | mW   |
| Radiant Flux <sup>3</sup>  | Φe     | 470        | IF=75mA    | 270  | --  | 390  | mW   |
| Radiant Flux <sup>4</sup>  | Φe     | 527        | IF=75mA    | 90   | --  | 180  | mW   |
| Spectral Line Half Width** | Δλ     | 450        | IF=75mA    | --   | 19  | --   | nm   |
| Spectral Line Half Width** | Δλ     | 460        | IF=75mA    | --   | 20  | --   | nm   |
| Spectral Line Half Width** | Δλ     | 470        | IF=75mA    | --   | 23  | --   | nm   |
| Spectral Line Half Width** | Δλ     | 527        | IF=75mA    | --   | 35  | --   | nm   |

<sup>1</sup> MTLR-EZ500-450    <sup>3</sup> MTLR-EZ500-470

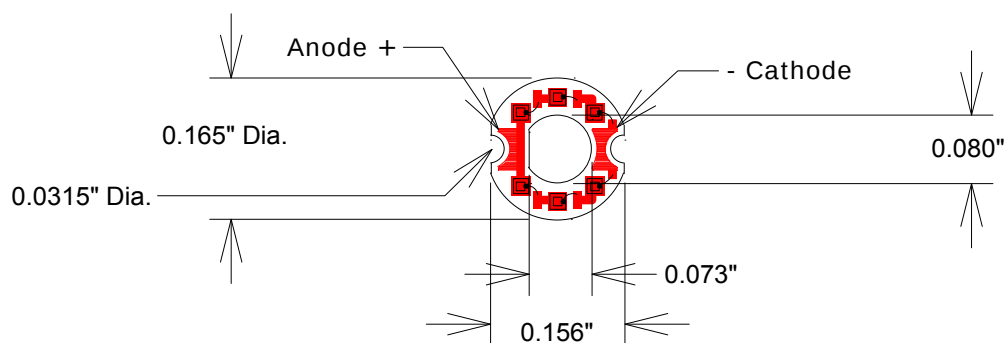
<sup>2</sup> MTLR-EZ500-460    <sup>4</sup> MTLR-EZ500-527

\* 3 die in series

## Circuit Diagram



## Board Dimensions



Board Material: Aluminium Core  
Board Thickness: 0.031"  
Overall Ring Thickness: 0.038"  $\pm 0.005$ "

All Dimensions are  $\pm 0.005$ "



We reserve the right to make changes to improve technical design and may do so without further notice. Parameters can vary in different applications. All operating parameters must be validated for each customer application by the customer.

The information contained herein is subject to change without notice.

2015-01-06