

# CLE536

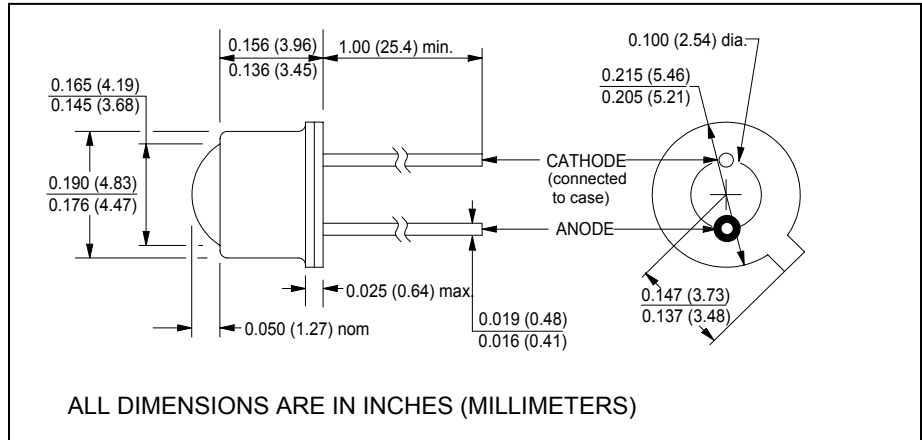
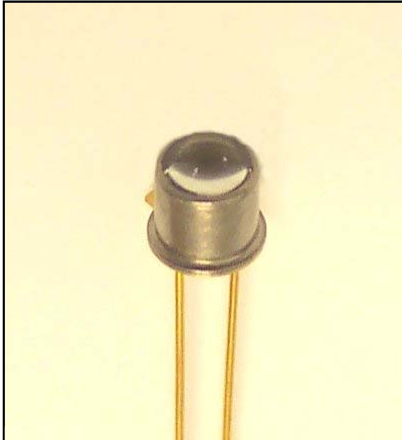
## High Power Blue LED

### Dome Lens Can, Hermetically Sealed

Preliminary



March, 2006



#### features

- Dome lens TO-46 package
- $\pm 11^\circ$  emitting angle
- High luminous intensity
- High luminous flux
- cathode connected to case
- RoHS compliant
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#### description

The CLE536 contains a GaN, high power output, blue LED mounted on a TO-46 header. The TO-46 header provides the thermal environment for reliable operation over a wide temperature range. For additional information, call Clairex.

#### absolute maximum ratings ( $T_A = 25^\circ\text{C}$ unless otherwise stated)

|   |                 |
|---|-----------------|
| storage temperature.....                                      | -65°C to +150°C |
| operating temperature.....                                    | -65°C to +125°C |
| lead soldering temperature <sup>(1)</sup> .....               | 260°C           |
| continuous forward current <sup>(2)</sup> .....               | 55mA            |
| reverse voltage.....  | 5.0V            |
| peak forward current (1.0ms pulse width, 10% duty cycle)..... | 0.25A           |
| continuous power dissipation <sup>(3)</sup> .....             | 200mW           |

#### notes:

1. 0.06" (1.5mm) from the header for 5 seconds maximum.
2. Derate linearly 0.44mA/°C from 25°C free air temperature to  $T_A = +125^\circ\text{C}$ .
3. Derate linearly 1.60mW/°C from 25°C free air temperature to  $T_A = +125^\circ\text{C}$ .

#### electrical characteristics ( $T_A = 25^\circ\text{C}$ unless otherwise noted)

| symbol        | parameter                           | min | typ  | max | units         | test conditions     |
|---------------|-------------------------------------|-----|------|-----|---------------|---------------------|
| $I_V$         | Luminous intensity                  | -   | 750  | -   | mcd           | $I_F = 20\text{mA}$ |
| $\Phi_V$      | Luminous flux                       | -   | 87.5 | -   | mlm           | $I_F = 20\text{mA}$ |
| $V_F$         | Forward voltage                     | -   | 3.2  | 3.6 | V             | $I_F = 20\text{mA}$ |
| $I_R$         | Reverse current                     | -   | -    | 10  | $\mu\text{A}$ | $V_R = 5.0\text{V}$ |
| $\Theta_{HP}$ | Emission angle at half power points | -   | 22   | -   | deg.          | $I_F = 20\text{mA}$ |
| $\lambda_p$   | Peak Wavelength                     | 460 | 465  | 470 | nm            | $I_F = 20\text{mA}$ |

Clairex reserves the right to make changes at any time to improve design and to provide the best possible product.

Revised 3/16/06