

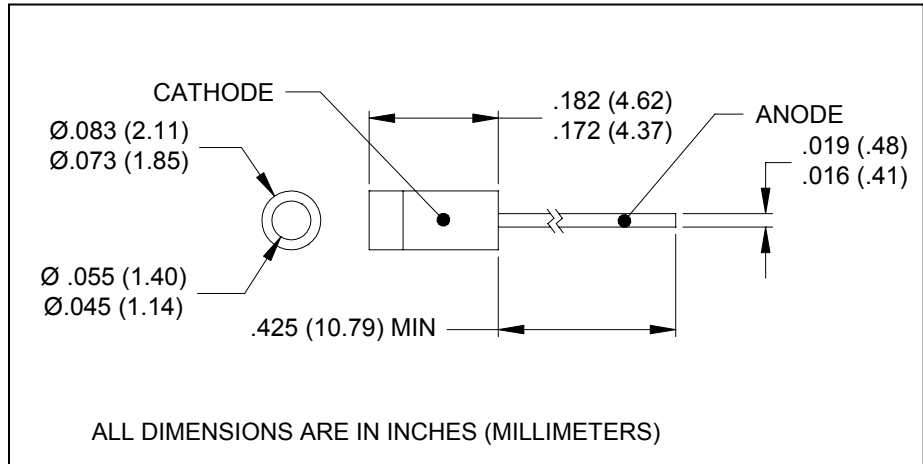
CLE445W

Preliminary



Red LED, Gallium Arsenide Phosphide Flat Window Hermetic Coaxial Package

March, 2006



features

- Flat lens miniature coaxial package
- $\pm 50^\circ$ emitting angle
- High luminous flux
- RoHS compliant

Description

The CLE445W contains an advanced, high output, GaAsP red emitting LED mounted in a miniature hermetic package. It is intended for applications requiring uniform output pattern over a relatively large area and where the application requires close mounting of emitters. Contact Clairex for additional information.

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 ⁽¹⁾ | 260°C |
| continuous forward current ⁽²⁾ | 60mA |
| reverse voltage | 5.0V |
| peak forward current (1.0ms pulse width, 10% duty cycle) | 0.25A |
| continuous power dissipation ⁽³⁾ | 150mW |

notes:

1. 0.06" (1.5mm) from case for 5 seconds maximum.
2. Derate linearly 0.48mA/°C from 25°C free air temperature to $T_A = +125^\circ\text{C}$.
3. Derate linearly 1.20mW/°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 |
|---------------|-------------------------------------|-----|-----|-----|---------------|---------------------|
| Φ_V | Luminous flux | - | 95 | - | mlm | $I_F = 20\text{mA}$ |
| V_F | Forward voltage | - | - | 2.4 | V | $I_F = 20\text{mA}$ |
| I_R | Reverse current | - | - | 10 | μA | $V_R = 5.0\text{V}$ |
| θ_{HP} | Emission angle at half power points | - | 100 | - | deg. | $I_F = 20\text{mA}$ |
| λ_p | Peak Wavelength | 650 | 660 | 670 | 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.

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