

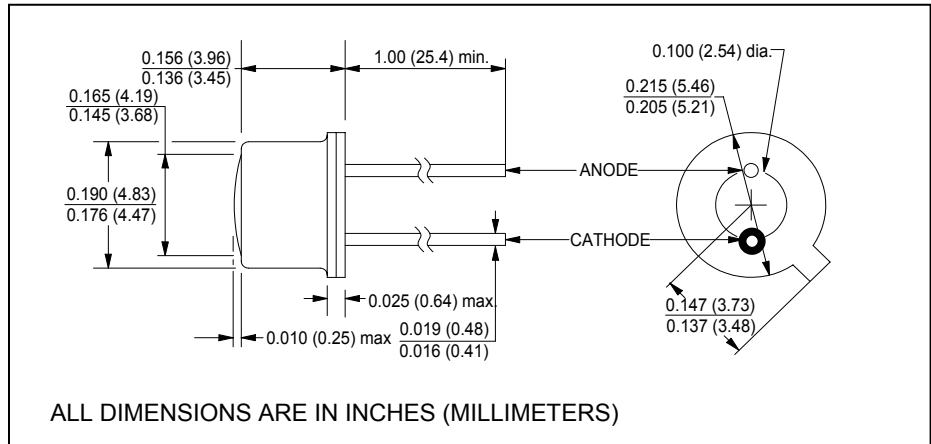
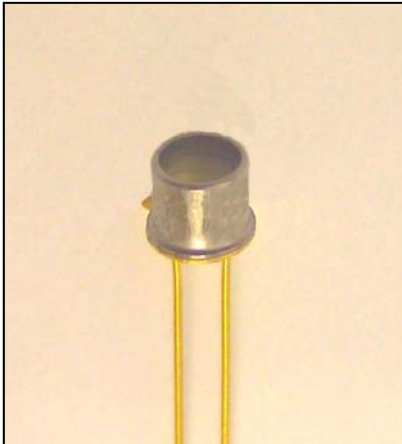
CLE435W

Preliminary



Red LED, Gallium Arsenide Phosphide Flat Window Can, Hermetically Sealed

March, 2006



features

- high power output
- 660nm wavelength
- TO-46 hermetic package
- RoHS compliant

description

The CLE435W is a high speed, GaAsP light emitting diode. The TO-46 header provides the thermal environment for reliable operation over an extremely wide temperature range. Call Clairex for applications assistance.

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

| | |
|---|-----------------|
| storage temperature..... | -65°C to +150°C |
| operating temperature | -55°C to +125°C |
| lead soldering temperature ⁽¹⁾ | 260°C |
| continuous forward current ⁽²⁾ | 60mA |
| peak forward current (1.0ms pulse width, 10% duty cycle)..... | 1A |
| reverse voltage | 5V |
| continuous power dissipation ⁽³⁾ | 200mW |

notes:

1. 0.06" (1.5mm) from the header 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 1.60mW/°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 |
|---------------|-------------------------------------|-----|-----|-----|---------------|---|
| Φ_V | Luminous flux | - | 72 | - | mlm | $I_F = 20\text{mA}$ |
| V_F | Forward voltage | - | 1.8 | 2.4 | V | $I_F = 20\text{mA}$ |
| I_R | Reverse current | - | - | 10 | μA | $V_R = 5.0\text{V}$ |
| λ_P | Peak emission wavelength | 650 | 660 | 670 | nm | $I_F = 20\text{mA}$ |
| Θ_{HP} | Emission angle at half power points | - | 70 | - | deg. | $I_F = 20\text{mA}$ |
| t_r, t_f | Radiation rise and fall time | - | 70 | - | ns | $I_{F(PK)} = 50\text{mA}, f = 1\text{kHz},$ Duty Cycle = 50% |

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

Revised 3/20/06

Clairex Technologies, Inc.
Phone: 972-265-4900

1301 East Plano Parkway
Fax: 972-265-4949

Plano, Texas 75074-8524
www.clairex.com