

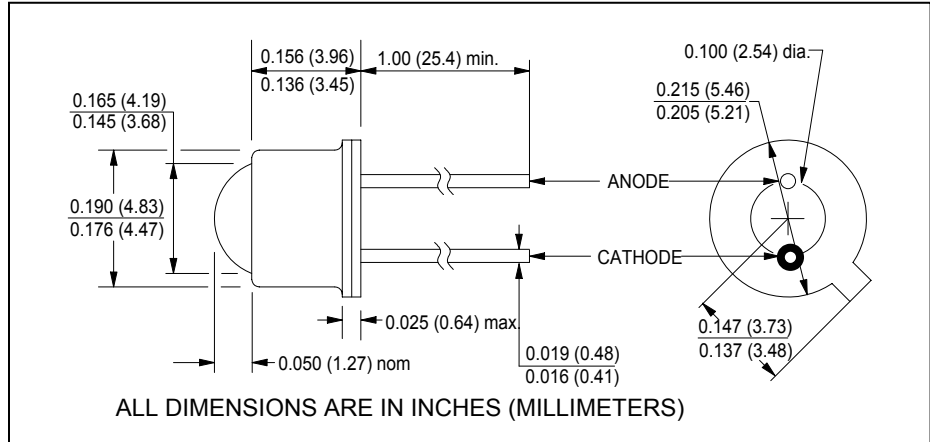
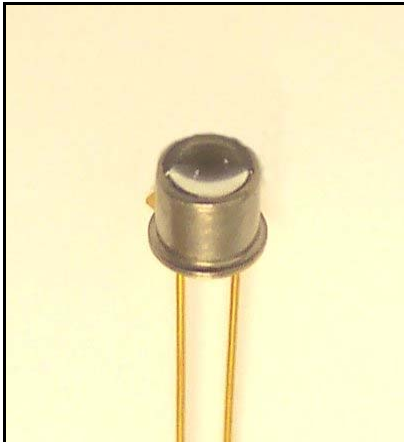
CLE436

Preliminary



High Power Red LED – Minimal Infrared Content Dome Lens Can, Hermetically Sealed

March, 2006



features

- Dome lens TO-46 Package
- Minimal infrared content
- $\pm 11^\circ$ emission angle
- High luminous flux
- RoHS compliant

description

The CLE436 is an advanced, high-efficiency, high speed, GaAlAs red light emitting diode designed for minimal light in the infrared region. Radiated emissions above 750nm are less than 0.1% of emissions at 660nm. For additional information, call Clairex.

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

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

notes:

1. 0.06" (1.5mm) from case for 5 seconds maximum.
2. Derate linearly 0.48mA/ $^\circ\text{C}$ from 25°C free air temperature to $T_A = +125^\circ\text{C}$.
3. Derate linearly 1.60mW/ $^\circ\text{C}$ 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	-	650	-	mcd	$I_F = 20\text{mA}$
Φ_V	Luminous flux	-	72	-	mlm	$I_F = 20\text{mA}$
V_F	Forward voltage	-	-	2.2	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	-	22	-	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.

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