

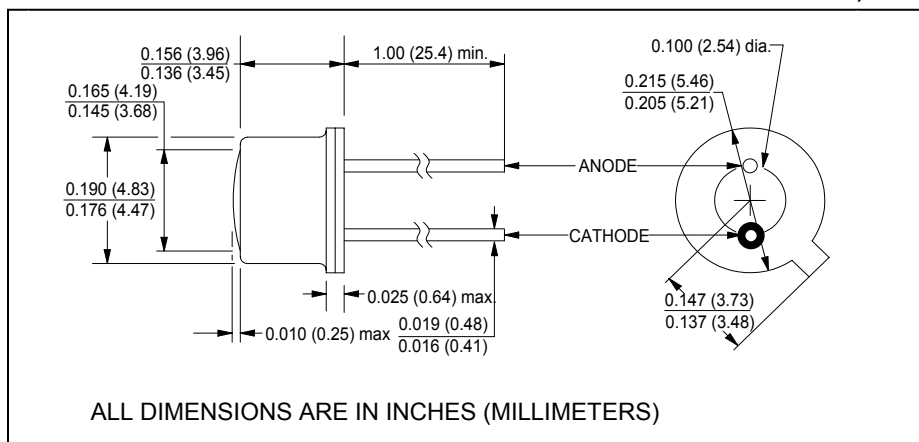
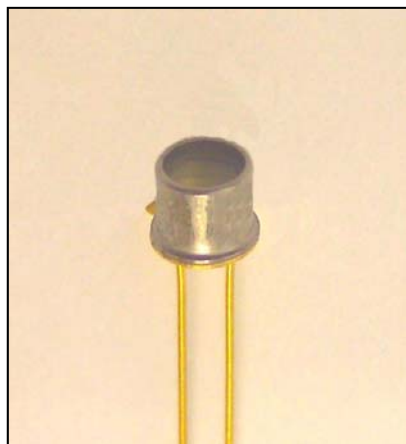
# CLE436W

Preliminary



## High Power Red LED – Minimal Infrared Content Flat Window Can, Hermetically Sealed

March, 2006

**features**

- Flat lens TO-46 Package
- Minimal infrared content
- $\pm 35^\circ$  emission angle
- High luminous flux
- RoHS compliant

**description**

The CLE436W 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 .....	$-65^\circ\text{C}$ to $+150^\circ\text{C}$
operating temperature .....	$-65^\circ\text{C}$ to $+125^\circ\text{C}$
lead soldering temperature <sup>(1)</sup> .....	$260^\circ\text{C}$
continuous forward current <sup>(2)</sup> .....	60mA
reverse voltage .....	5.0V
peak forward current (1.0ms pulse width, 10% duty cycle) .....	1.0A
continuous power dissipation <sup>(3)</sup> .....	200mW

**notes:**

1. 0.06" (1.5mm) from case for 5 seconds maximum.
2. Derate linearly 0.48mA/ $^\circ\text{C}$  from  $25^\circ\text{C}$  free air temperature to  $T_A = +125^\circ\text{C}$ .
3. Derate linearly 1.60mW/ $^\circ\text{C}$  from  $25^\circ\text{C}$  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
$\Phi_V$	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	$\mu\text{A}$	$V_R = 5.0\text{V}$
$\theta_{HP}$	Emission angle at half power points	-	70	-	deg.	$I_F = 20\text{mA}$
$\lambda_p$	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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