

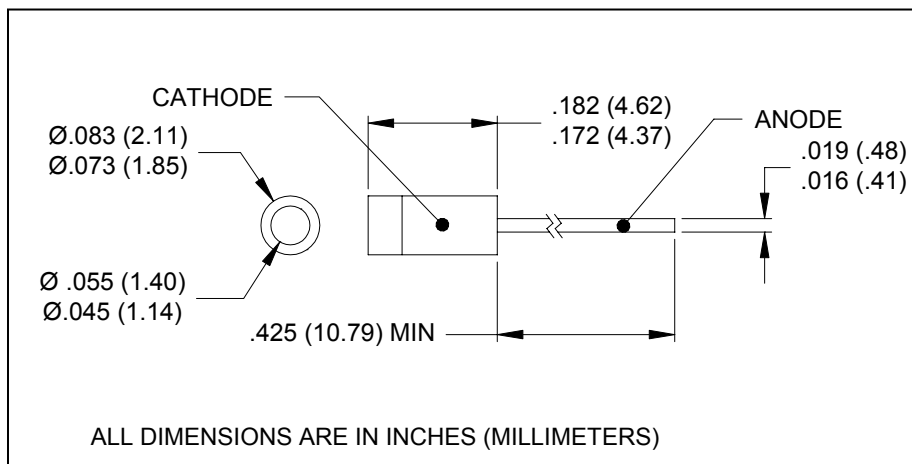
# CLE445W

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 .....	$-65^\circ\text{C}$ 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) .....	0.25A
continuous power dissipation <sup>(3)</sup> .....	150mW

**notes:**

1. 0.06" (1.5mm) from case for 5 seconds maximum.
2. Derate linearly  $0.48\text{mA}/^\circ\text{C}$  from  $25^\circ\text{C}$  free air temperature to  $T_A = +125^\circ\text{C}$ .
3. Derate linearly  $1.20\text{mW}/^\circ\text{C}$  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	-	95	-	mlm	$I_F = 20\text{mA}$
$V_F$	Forward voltage	-	-	2.4	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	-	100	-	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.

Revised 3/20/06