

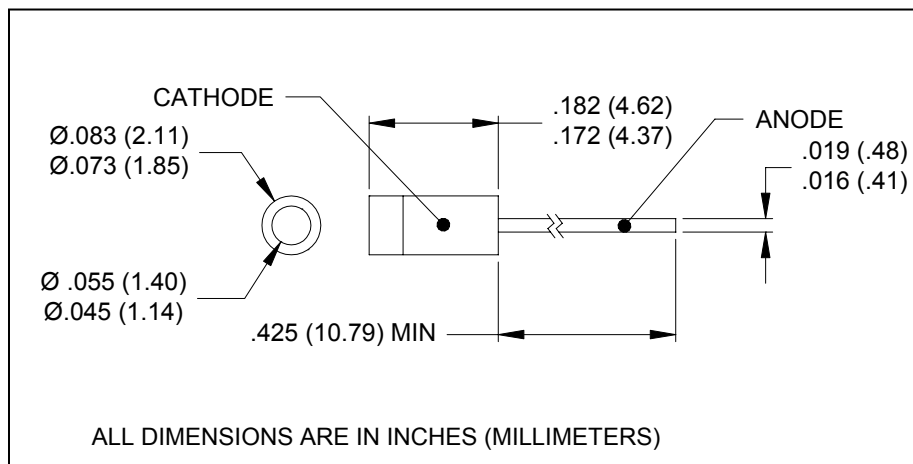
CLE445W

Preliminary



March, 2006

Red LED, Gallium Arsenide Phosphide Flat Window Hermetic Coaxial Package

**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 $+150^\circ\text{C}$
operating temperature	-65°C to $+125^\circ\text{C}$
lead soldering temperature ⁽¹⁾	260°C
continuous forward current ⁽²⁾	60mA
reverse voltage	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 $0.48\text{mA}/^\circ\text{C}$ from 25°C free air temperature to $T_A = +125^\circ\text{C}$.
3. Derate linearly $1.20\text{mW}/^\circ\text{C}$ 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
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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