

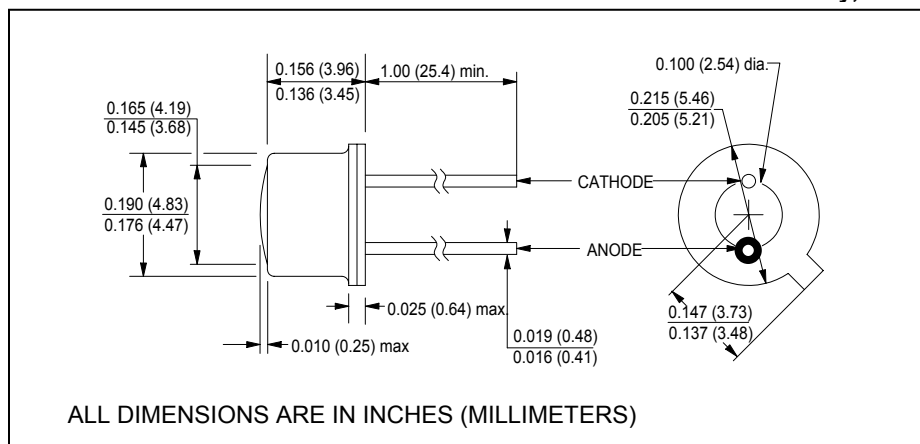
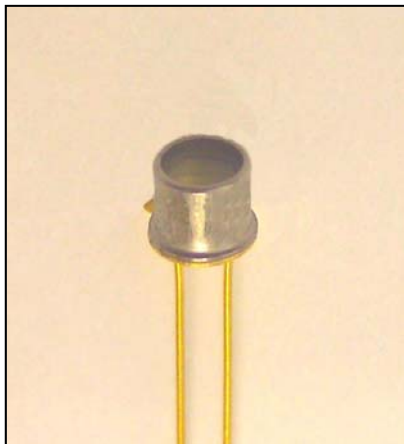
CLE539W

High Power GaN White LED Flat Window Can, Hermetically Sealed

Preliminary



January, 2005



features

- Flat lens TO-46 Package
- $\pm 35^\circ$ emission angle
- High luminous flux
- Cathode connected to case
- RoHS compliant

description

The CLE539W contains a GaN, high power output, blue LED bonded to a ceramic substrate and mounted on a TO-46 header. A phosphor coating is applied to the die which, when excited, emits white light. The TO-46 header provides the thermal environment for reliable operation over a wide temperature range. 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⁾	55mA
reverse voltage	5.0V
peak forward current (1.0ms pulse width, 10% duty cycle)	0.25A
continuous power dissipation ⁽³⁾	200mW

notes:

1. 0.06" (1.5mm) from case for 5 seconds maximum
2. Derate linearly 0.44mA/ $^\circ\text{C}$ 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
Φ_V	Luminous flux	-	635	-	mlm	$I_F = 20\text{mA}$
V_F	Forward voltage	-	3.2	3.6	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	-	70	-	deg.	$I_F = 20\text{mA}$

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

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