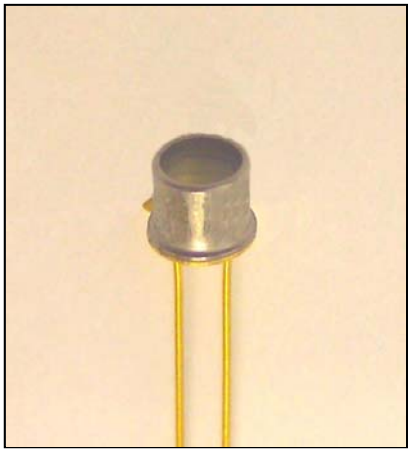
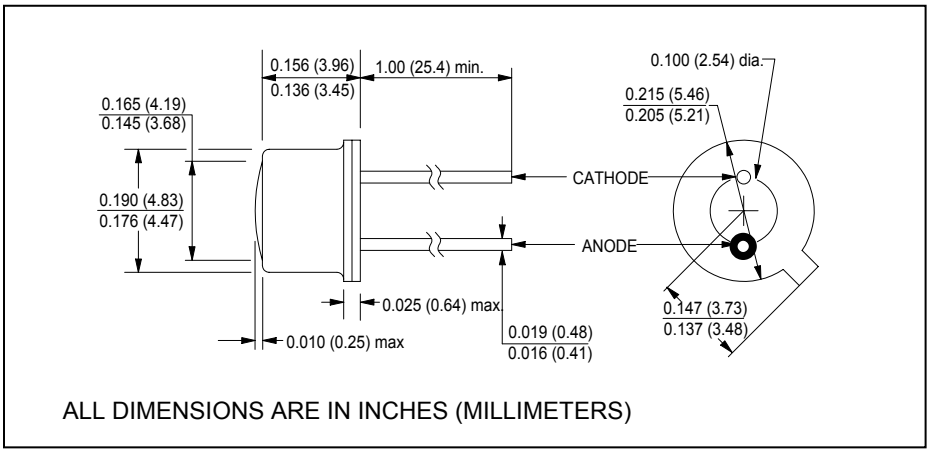
CLE539W

Preliminary

High Power GaN White LED
Flat Window Can, Hermetically Sealed

January, 2005





ALL DIMENSIONS ARE IN INCHES (MILLIMETERS)

features

- Flat lens TO-46 Package
- ±35° 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°C unless otherwise stated)

storage temperature	-65°C to +150°C
operating temperature	-65°C to +125°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/°C from 25°C free air temperature to T_A = +125°C.
3. Derate linearly 1.60mW/°C from 25°C free air temperature to T_A = +125°C.

electrical characteristics (T_A = 25°C unless otherwise noted)

symbol	parameter	min	typ	max	units	test conditions
Φ_V	Luminous flux	-	635	-	mlm	I_F = 20mA
V_F	Forward voltage	-	3.2	3.6	V	I_F = 20mA
I_R	Reverse current	-	-	10	μA	V_R = 5.0V
θ_{HP}	Emission angle at half power points	-	70	-	deg.	I_F = 20mA

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