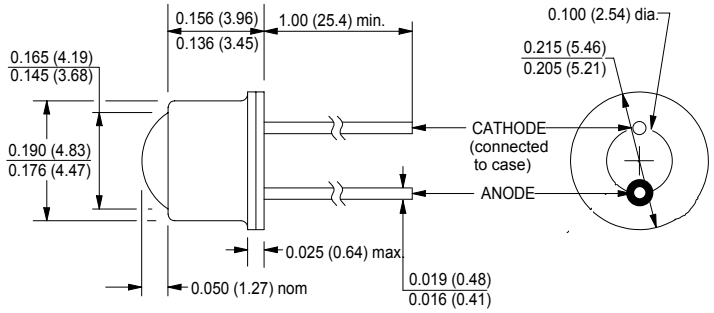
CLE501

390nm UV LED
Dome Lens, TO-46 Aluminum Package

Clairex® Technologies, Inc.

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ALL DIMENSIONS ARE IN INCHES (MILLIMETERS)
Anode lead is longer than cathode lead.

features

- 390nm wavelength
- ±35° emission angle
- Cathode connected to case
- RoHS compliant

applications

- identifying petroleum deposits in down-hole drilling operations
- currency validation
- security
- water purification
- UV epoxy curing

description

The CLE501 contains a single 390nm LED die mounted on a TO-46 aluminum header. Custom variations are available which can contain from one to more than nine die. Special lenses and multiple lead packages are also available. Call Clairex for more information.

absolute maximum ratings (T_A = 25°C unless otherwise stated)

storage temperature	-40°C to +100°C
operating temperature	-40°C to +100°C
lead soldering temperature[1]	260°C
continuous forward current[2]	20mA
peak forward current (1.0ms pulse width, 10% duty cycle)	0.5A
reverse voltage	5.0V
continuous power dissipation[3]	200mW

notes:

1. 0.06" (1.5mm) from case for 5 seconds maximum
2. Derate linearly 0.21mA/°C from 25°C free air temperature to T_A = +100°C.
3. Derate linearly 3.73mW/°C from 25°C free air temperature to T_A = +100°C.

Exercise caution when applying power to this unit. It emits high amounts of UV radiation. Do not look directly into the lens without proper eye protection.

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

symbol	parameter	min	typ	max	units	test conditions
P_O	Total power output [4]	1.5	-	-	mW	I_F = 20mA
V_F	Forward voltage	-	3.0	3.9	V	I_F = 20mA
I_R	Reverse current	-	-	10	µA	V_R = 5.0V
λp	Peak emission wavelength	375	390	405	nm	I_F = 20mA
θ_{HP}	Emission angle at half power points	-	70	-	deg.	I_F = 20mA

note: 4. Power output is measured in an integrating sphere.

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

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