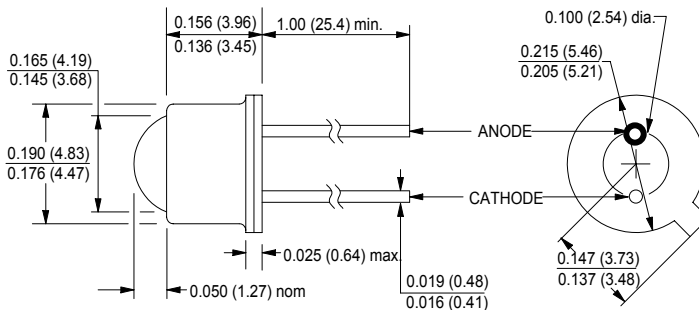


CLE332 Series

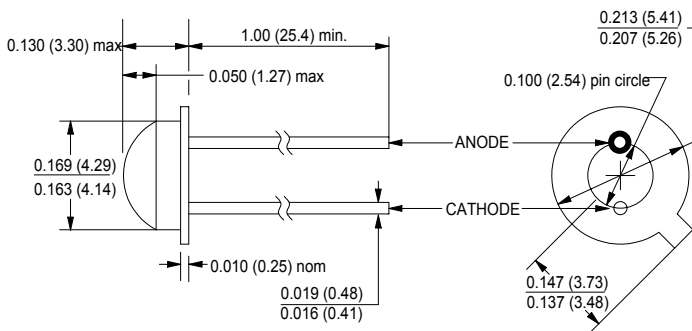
850nm Point Source Emitters



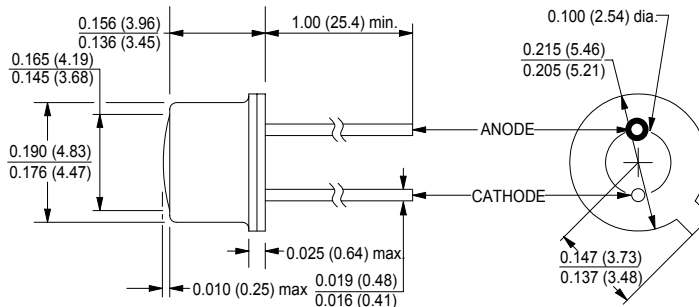
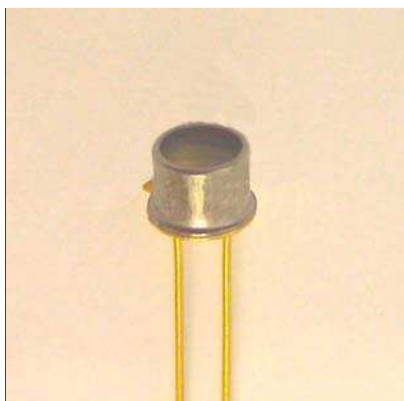
February, 2005



CLE332



CLE332E



ALL DIMENSIONS ARE IN INCHES (MILLIMETERS)

CLE332W

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

Revised 3/15/06

CLE332 Series

850nm Point Source Emitters



features

- TO-46 header with three lens options
- cathode connected to case
- high power output
- different package styles provide flexible design options

description

The CLE332 series of products feature AlGaAs, 850nm, point source chips. Three different lens options are offered which satisfy the majority of application requirements. Contact Clairex for other package options.

absolute maximum ratings ($T_A = 25^\circ\text{C}$ unless otherwise stated)

storage temperature	
CLE332 and CLE332W	-65°C to +150°C
CLE332E	-40°C to +125°C
operating temperature	
CLE332 and CLE332W	-65°C to +125°C
CLE332E	-40°C to +100°C
lead soldering temperature ⁽¹⁾	260°C
continuous forward current ⁽²⁾	50mA
peak forward current (1.0ms pulse width, 10% duty cycle)	1A
reverse voltage	5V
continuous power dissipation ⁽³⁾	200mW

notes:

1. 0.06" (1.5mm) from the header for 5 seconds maximum
2. Derate linearly 0.40mA/°C from 25°C free air temperature to $T_A = +125^\circ\text{C}$.
3. Derate linearly 1.60mW/°C from 25°C free air temperature to $T_A = +125^\circ\text{C}$.
4. These devices are sensitive to transients. Use series resistors or power supply load resistors when applying power.

electrical characteristics ($T_A = 25^\circ\text{C}$ unless otherwise noted)						
symbol	parameter	min	typ	max	units	test conditions
CLE332 Series						
V_F	Forward voltage	-	1.8	2.0	V	$I_F = 50\text{mA}$
I_R	Reverse current	-	-	10	μA	$V_R = 5\text{V}$
λ_p	Peak wavelength	840	850	860	nm	$I_F = 50\text{mA}$
BW	Spectral bandwidth	-	40	-	nm	$I_F = 50\text{mA}$
t_r, t_f	Output rise and fall time	-	10	-	ns	$I_F = 50\text{mA}$, 10% - 90% 5mA prebias
CLE332						
P_O	Total output power	1.5	2.0	-	mW	$I_F = 50\text{mA}$
E_e	Irradiance	225	-	-	$\mu\text{W}/\text{cm}^2$	$I_F = 50\text{mA}$
θ_{HP}	Emission angle at half power points	-	15	-	deg.	$I_F = 50\text{mA}$
CLE332E						
P_O	Total output power	3.5	4.5	-	mW	$I_F = 50\text{mA}$
θ_{HP}	Emission angle at half power points	-	135	-	deg.	$I_F = 50\text{mA}$
CLE332W						
P_O	Total output power	1.5	2.0	-	mW	$I_F = 50\text{mA}$
θ_{HP}	Emission angle at half power points	-	80	-	deg.	$I_F = 50\text{mA}$

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