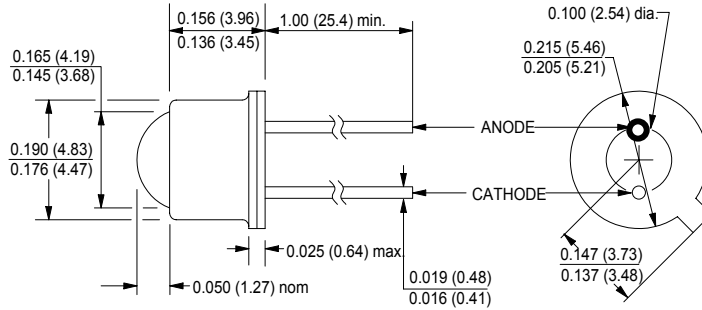


# CLE332 Series

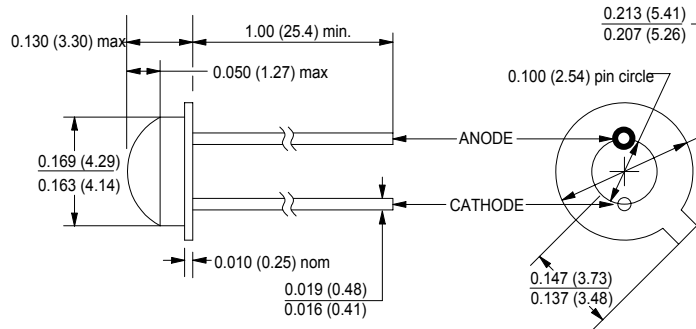
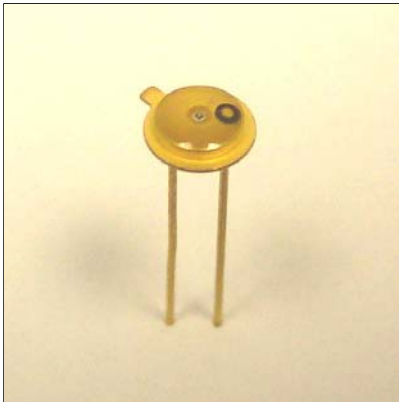
## 850nm Point Source Emitters



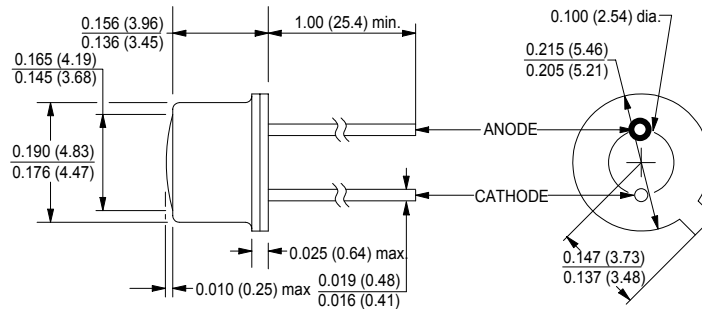
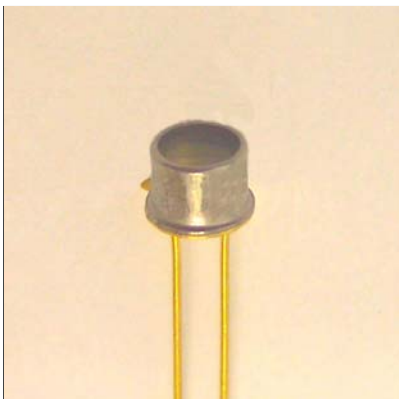
February, 2005



**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 <sup>(1)</sup>		260°C
continuous forward current <sup>(2)</sup>		50mA
peak forward current (1.0ms pulse width, 10% duty cycle)		1A
reverse voltage		5V
continuous power dissipation <sup>(3)</sup>		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
<b>CLE332 Series</b>						
$V_F$	Forward voltage	-	1.8	2.0	V	$I_F = 50\text{mA}$
$I_R$	Reverse current	-	-	10	$\mu\text{A}$	$V_R = 5\text{V}$
$\lambda_p$	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
<b>CLE332</b>						
$P_O$	Total output power	1.5	2.0	-	mW	$I_F = 50\text{mA}$
$E_e$	Irradiance	225	-	-	$\mu\text{W}/\text{cm}^2$	$I_F = 50\text{mA}$
$\theta_{HP}$	Emission angle at half power points	-	15	-	deg.	$I_F = 50\text{mA}$
<b>CLE332E</b>						
$P_O$	Total output power	3.5	4.5	-	mW	$I_F = 50\text{mA}$
$\theta_{HP}$	Emission angle at half power points	-	135	-	deg.	$I_F = 50\text{mA}$
<b>CLE332W</b>						
$P_O$	Total output power	1.5	2.0	-	mW	$I_F = 50\text{mA}$
$\theta_{HP}$	Emission angle at half power points	-	80	-	deg.	$I_F = 50\text{mA}$

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