

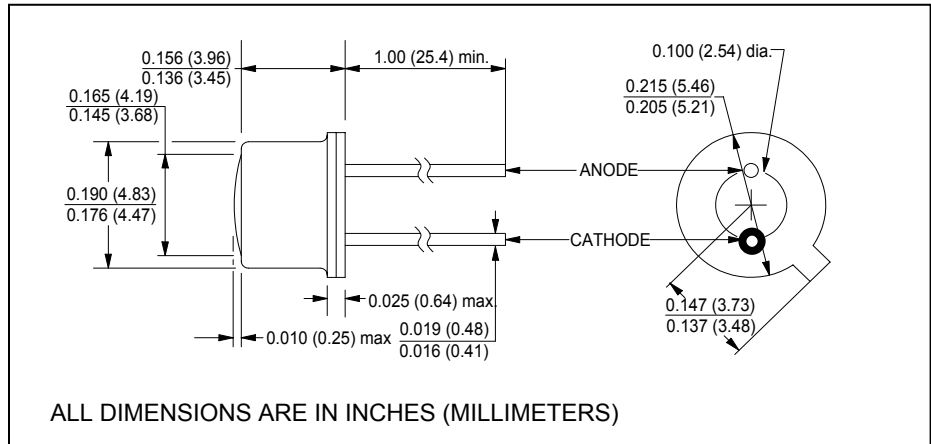
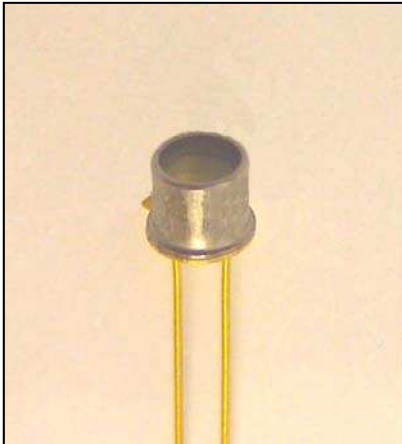
# CLE435W

Preliminary



## Red LED, Gallium Arsenide Phosphide Flat Window Can, Hermetically Sealed

March, 2006



### features

- high power output
- 660nm wavelength
- TO-46 hermetic package
- RoHS compliant

### description

The CLE435W is a high speed, GaAsP light emitting diode. The TO-46 header provides the thermal environment for reliable operation over an extremely wide temperature range. Call Clairex for applications assistance.

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

storage temperature.....	-65°C to +150°C
operating temperature .....	-55°C to +125°C
lead soldering temperature <sup>(1)</sup> .....	260°C
continuous forward current <sup>(2)</sup> .....	60mA
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 0.48mA/°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  $T_A = +125^\circ\text{C}$ .

### electrical characteristics ( $T_A = 25^\circ\text{C}$ unless otherwise noted)

symbol	parameter	min	typ	max	units	test conditions
$\Phi_V$	Luminous flux	-	72	-	mlm	$I_F = 20\text{mA}$
$V_F$	Forward voltage	-	1.8	2.4	V	$I_F = 20\text{mA}$
$I_R$	Reverse current	-	-	10	$\mu\text{A}$	$V_R = 5.0\text{V}$
$\lambda_P$	Peak emission wavelength	650	660	670	nm	$I_F = 20\text{mA}$
$\Theta_{HP}$	Emission angle at half power points	-	70	-	deg.	$I_F = 20\text{mA}$
$t_r, t_f$	Radiation rise and fall time	-	70	-	ns	$I_{F(PK)} = 50\text{mA}, f = 1\text{kHz},$ Duty Cycle = 50%

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

Revised 3/20/06