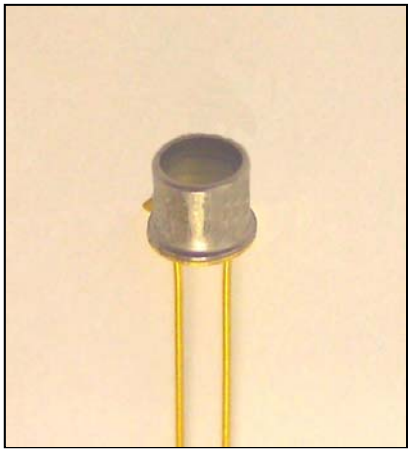
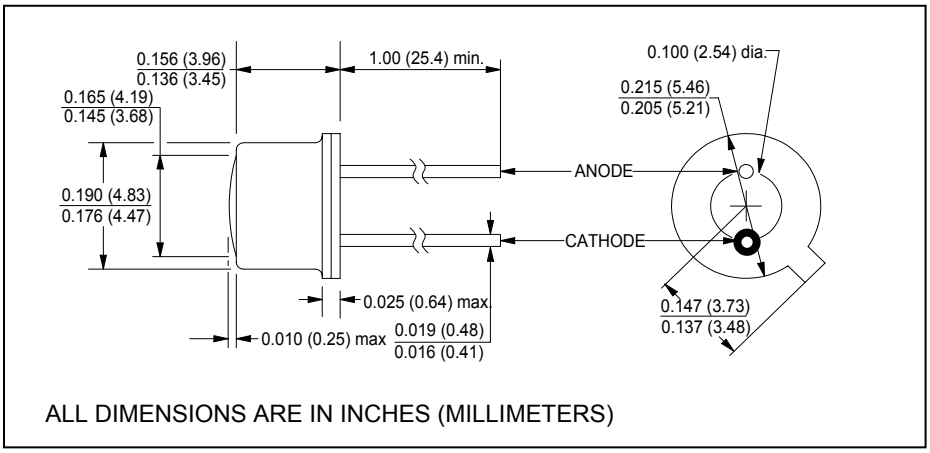
CLE435W

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°C unless otherwise stated)

storage temperature	-65°C to +150°C
operating temperature	-55°C to +125°C
lead soldering temperature[1]	260°C
continuous forward current[2]	60mA
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 0.48mA/°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	-	72	-	mlm	I_F = 20mA
V_F	Forward voltage	-	1.8	2.4	V	I_F = 20mA
I_R	Reverse current	-	-	10	µA	V_R = 5.0V
λ_P	Peak emission wavelength	650	660	670	nm	I_F = 20mA
Θ_{HP}	Emission angle at half power points	-	70	-	deg.	I_F = 20mA
t_r, t_f	Radiation rise and fall time	-	70	-	ns	$I_{F(PK)}$ = 50mA, f = 1kHz, Duty Cycle = 50%

Revised 3/20/06

Clairex Technologies, Inc.
1301 East Plano Parkway
Plano, Texas 75074-8524
Phone: 972-265-4900
Fax: 972-265-4949
www.clairex.com