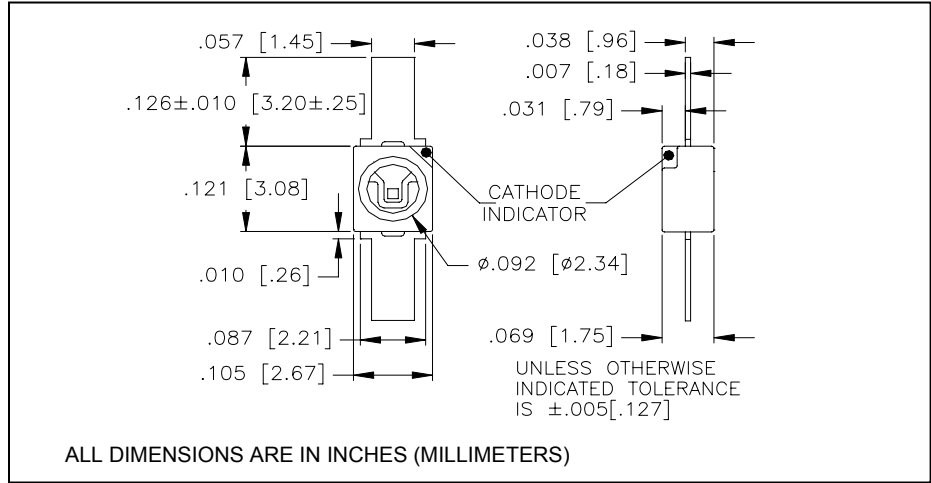


CLE100F

Gallium Arsenide IRED Flat Lead PLCC Package



August, 2001



features

- Flat lead PLCC package
- ±50° emission angle
- 940 nm peak wavelength

description

The CLE100F is a 940nm infrared emitting diode featuring current GaAs/AlGaAs technology for increased quantum efficiency. The chip is mounted in a compact, embedded leadframe package with flying lead configuration and overcoated with clear epoxy to provide a wide emission pattern. Different wavelength chips, different lenses and different lead configurations are available. For additional information, call Clairex.

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

storage temperature	-40°C to +125°C
operating temperature	-40°C to +100°C
lead soldering temperature ⁽¹⁾	260°C
continuous forward current ⁽²⁾	30mA
peak forward current (1.0ms pulse width, 10% duty cycle)	1A
reverse voltage	5V
continuous power dissipation ⁽³⁾	75mW

notes:

1. 0.06" (1.5mm) from case for 5 seconds maximum.
2. Derate linearly 0.32mA/°C from 25°C free air temperature to T_A = +100°C.
3. Derate linearly 0.80mW/°C from 25°C free air temperature to T_A = +100°C.

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

symbol	parameter	min	typ	max	units	test conditions
P _O	Total power output	2.0	2.5	-	mW	I _F = 20mA
V _F	Forward voltage	-	-	1.5	V	I _F = 20mA
I _R	Reverse current	-	-	10	μA	V _R = 5.0V
λ _p	Peak emission wavelength	-	940	-	nm	I _F = 20mA
BW	Spectral bandwidth at half power points	-	50	-	nm	I _F = 20mA
θ _{HP}	Emission angle at half power points	-	100	-	deg.	I _F = 20mA
t _r , t _f	Radiation rise and fall time	-	700	-	ns	I _{F(PK)} = 20mA

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

Revised 3/15/06