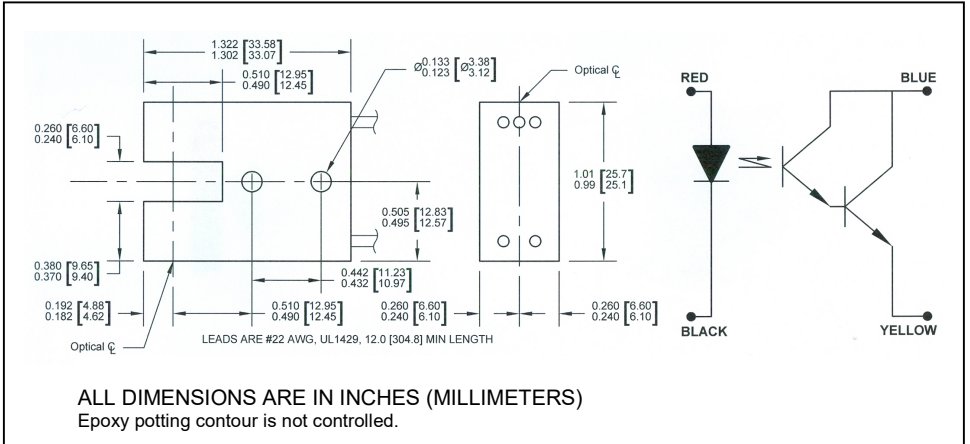
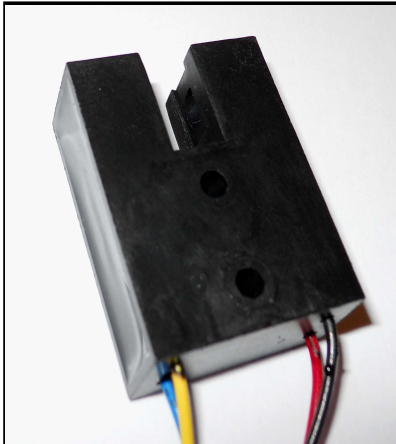


CLI325

IRED - Photodarlington Photointerrupter



features

- rugged VALOX[®] housing
- narrow beam alignment
- high sensor current level

description

The CLI325 consists of an IRED and a photodarlington secured in place with black epoxy backfill. This ensures maximum environmental protection and precise alignment when exposed to extreme conditions. Featured are 12 inch leads and two holes for bracket mounting in any position. Contact Clairex for assistance.

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

| | |
|---|-----------------|
| storage and operating temperature..... | -55°C to +100°C |
| LED | |
| continuous forward DC current..... | 60 mA |
| reverse DC voltage..... | 3 V |
| power dissipation ⁽¹⁾ | 100 mW |
| PHOTODARLINGTON | |
| collector-emitter voltage..... | 30 V |
| maximum continuous collector current ⁽²⁾ | 100 mA |
| power dissipation ⁽³⁾ | 200 mW |

notes:

1. Derate linearly 1.20 mW/°C from 25°C free air temperature to T_A = +100°C.
2. 200 mA when pulsed at 300 μs, 2% duty cycle.
3. Derate linearly 2.40 mW/°C from 25°C free air temperature to T_A = +100°C.
4. I_F = 0 indicates light path is blocked by an opaque object.

| electrical characteristics (T _A = 25°C unless otherwise noted) | | | | | | |
|---|--------------------------------|-----|-----|-----|-------|--|
| symbol | parameter | min | typ | max | units | test conditions |
| Input IRED | | | | | | |
| V _F | Forward voltage | - | - | 1.5 | V | I _F = 16 mA |
| I _R | Reverse current | - | - | 10 | μA | V _R = 3 V |
| Output Photodarlington | | | | | | |
| I _D | Collector-emitter dark current | - | - | 100 | nA | I _F = 0 ⁽⁴⁾ V _{CE} = 10 V, |
| Coupled | | | | | | |
| I _L | Sensor current | 3.0 | - | - | mA | I _F = 10 mA, V _{CE} = 5 V |
| V _{CE(SAT)} | Saturation voltage | - | - | 1.2 | V | I _F = 10 mA, I _C = 4 mA |
| t _r , t _f | Output rise and fall time | - | 50 | - | μsec | I _C = 2 mA, V _{CC} = 10 V, R _L = 100 Ω |

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