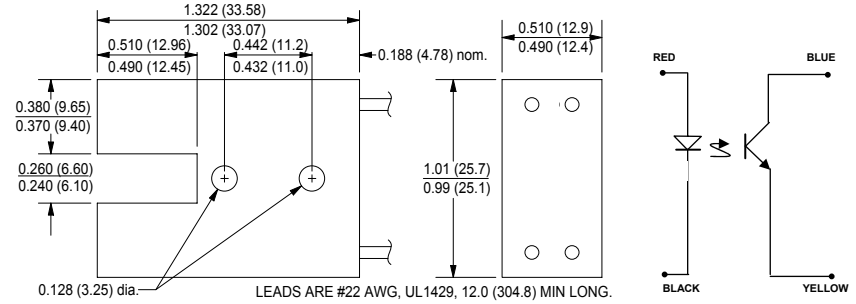
CLI375

IRED - Phototransistor Photointerrupter

Clairex® Technologies, Inc.

July, 2002



ALL DIMENSIONS ARE IN INCHES (MILLIMETERS)
Epoxy potting contour is not controlled.

features

- rugged plastic package
- hermetically sealed discretes
- narrow beam alignment

description

The CLI375 consists of an IRED and a phototransistor mounted in a black plastic housing. It features 12 inch leads and two holes for bracket mounting in any position. Also it features 1.0mA minimum sensor current with fast switching speed and low collector current saturation voltage. For assistance, call Clairex.

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

storage and operating temperature.....-55°C to +100°C

LED

continuous forward DC current.....60mA
reverse DC voltage.....3V
power dissipation[1].....100mW

PHOTOTRANSISTOR

collector-emitter voltage.....30V
maximum continuous collector current[2].....100mA
power dissipation[3].....200mW

notes:

1. Derate linearly 1.33mW/°C from 25°C free air temperature to T_A = +100°C.
2. 200mA when pulsed at 300µs, 2% duty cycle.
3. Derate linearly 2.66mW/°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
Input IRED						
V_F	Forward voltage	-	-	1.5	V	I_F = 16mA
I_R	Reverse current	-	-	10	µA	V_R = 3V
Output Phototransistor						
I_D	Collector-emitter dark current	-	-	50	nA	V_{CE} = 10V, E_e = 0
$V_{BR(CEO)}$	Collector-emitter breakdown voltage	30	-	-	V	I_C = 100µA
Coupled						
V_{sat}	Saturation voltage	-	-	0.5	V	I_F = 20mA, I_C = 1mA
I_L	Sensor current	1.0	-	-	mA	I_F = 10mA, V_{CE} = 5V
t_r, t_f	Output rise and fall time	-	5.0	-	µsec	I_C = 2.0mA, V_{CE} = 10V, R_L=100Ω

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