Clairex CLA101 Phototransistor Array Datasheet

http://www.manuallib.com/clairex/cla101-phototransistor-array-datasheet.html

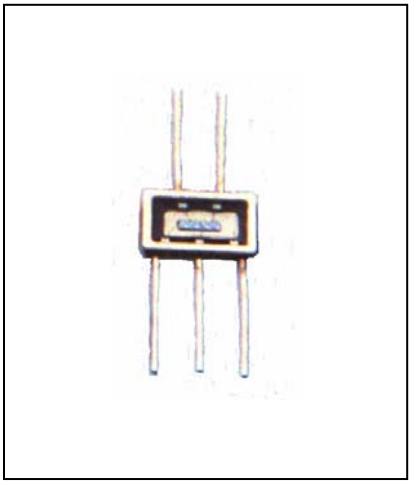
The CLA101 four channel phototransistor array can be custom designed with photodiode or photo-IC chips.An emitter version is also available using same wavelength or different wavelength die.For additional information,call Clairex.

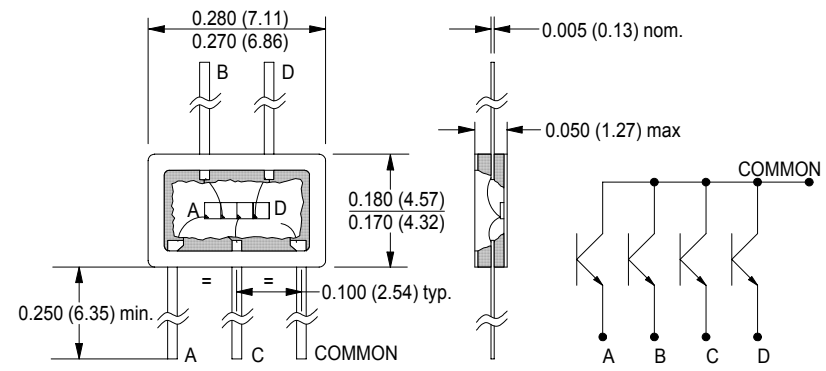
CLA101

Four Channel Phototransistor Array

Clairex® Technologies, Inc.

September, 2001





ALL DIMENSIONS ARE IN INCHES (MILLIMETERS)

features

- Full range of sensor chips
- Full range of emitter chips
- Miniature surface mountable package

description

The CLA101 four channel phototransistor array can be custom designed with photodiode or photo-IC chips. An emitter version is also available using same wavelength or different wavelength die. For additional information, call Clairex.

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

storage temperature	-40°C to +100°C
operating temperature	-40°C to +100°C
lead soldering temperature[1]	260°C
maximum continuous current[2]	50mA
peak forward current (1.0ms pulse width, 10% duty cycle)	1A
reverse voltage	5V
continuous power dissipation[3]	75mW

notes:

1. At the base of the header for 5 seconds maximum.
2. Derate linearly 0.53mA/°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
I_L	Light current[4]	150	-	-	µA	E_e=1mW/cm^2, V_{CE}=5V
	Matching factor	-	-	0.4	-	$(I_{LHIGH}-I_{LLOW})/I_{LHIGH}$
I_D	Dark current	-	-	100	nA	V_{CE} = 10V, H=0
$V_{(BR)CEO}$	Collector-emitter breakdown voltage	40	-	-	V	I_{CE} = 0.1mA
$V_{(BR)ECO}$	Emitter-collector breakdown voltage	5.0	-	-	V	I_{EC} = 0.1mA
$V_{CE(SAT)}$	Collector-emitter saturation voltage	-	-	0.4	V	E_e=20mW/cm^2, I_{CE}=.5mA
t_r, t_f	Rise and fall times	-	3.0	-	µs	R_L=100Ω, V_{CE}= 5V

Note: 4. Radiation source for light current testing is tungsten at 2854°K.

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