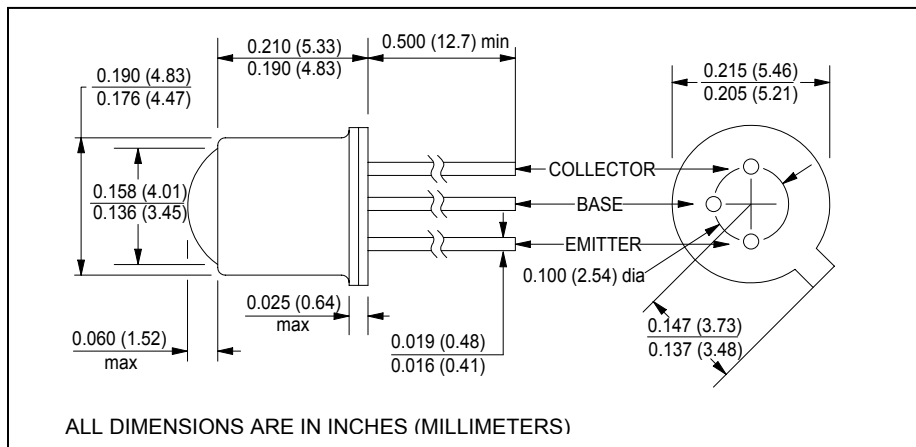
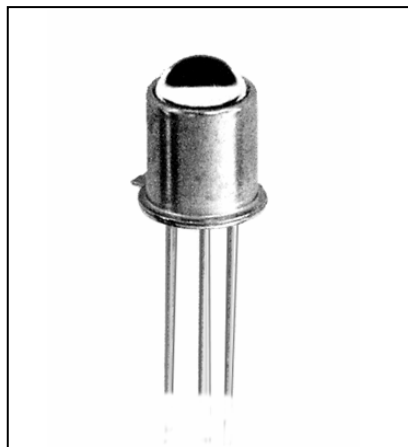


CLT435

NPN Silicon Phototransistor



March, 2001



features

- 18° acceptance angle
- custom aspheric lensed TO-18 package
- transistor base is not bonded
- tested and characterized at 660nm

description

The CLT435 is a silicon NPN phototransistor mounted in a TO-18 package which features a custom double convex glass-to-metal sealed aspheric lens. Narrow acceptance angle enables excellent on-axis coupling. The CLT435 is mechanically and spectrally matched to Clairex's CLE435 LED. For additional information, call Clairex.

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

storage temperature	-65°C to +150°C
operating temperature	-65°C to +125°C
lead soldering temperature ⁽¹⁾	260°C
collector-emitter voltage	25V
continuous collector current	50mA
maximum continuous power dissipation	250mW ⁽²⁾

notes:

1. 0.06" (1.5mm) from the header for 5 seconds maximum
2. Derate linearly 2.0mW/°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
I _L	Light current ⁽¹⁾	1.0	- 1.0	- -	μA mA	V _{CE} = 5V, E _e = 20μW/cm ² V _{CE} = 5V, E _e = 1mW/cm ²
I _{CEO}	Collector dark current	-	-	100	nA	V _{CE} = 10V, E _e = 0
V _{(BR)CEO}	Collector-emitter breakdown	25	-	-	V	I _C = 100μA
t _r , t _f	Output rise and fall time ⁽²⁾	-	5.0	-	μs	I _C = 0.8mA
θ _{HP}	Total angle at half sensitivity points	-	18	-	deg.	

- notes:** 1. Light source is a gallium arsenide phosphide LED operating at a peak emission wavelength of 660nm.
2. V_{CC} = 5V, R_L = 1kΩ.

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

Revised 12/01/04