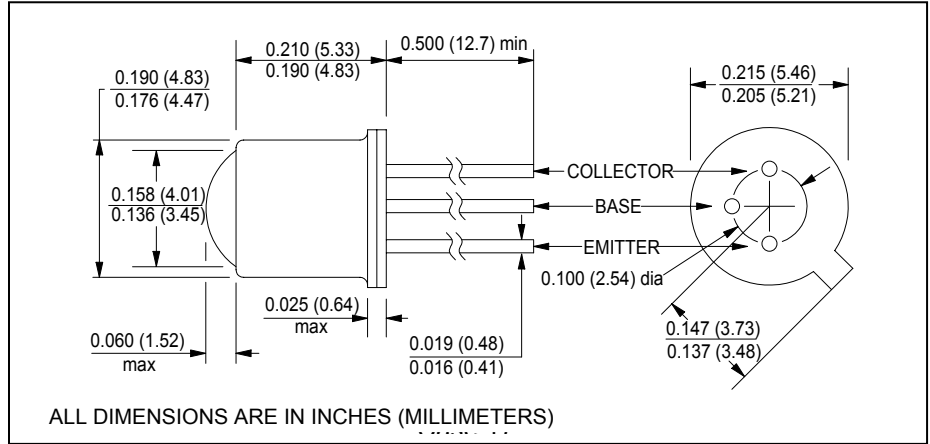


# CLT335

## NPN Silicon Phototransistor



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### features

- 18° acceptance angle
- custom aspheric lensed TO-18 package
- transistor base is not bonded
- tested and characterized at 850nm

### description

The CLT335 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 CLT335 is mechanically and spectrally matched to Clairex's CLE335 LED. For additional information, call Clairex.

### absolute maximum ratings (T<sub>A</sub> = 25°C unless otherwise stated)

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

### notes:

1. 0.06" (1.5mm) from the header for 5 seconds maximum
2. Derate linearly 2.25mW/°C from 25°C free air temperature to T<sub>A</sub> = +125°C.

electrical characteristics (T <sub>A</sub> = 25°C unless otherwise noted)						
symbol	parameter	min	typ	max	units	test conditions
I <sub>L</sub>	Light current <sup>(1)</sup>	3.0	-	-	μA	V <sub>CE</sub> =5V, E <sub>e</sub> =20μW/cm <sup>2</sup>
		-	5	-	mA	V <sub>CE</sub> =5V, E <sub>e</sub> =1mW/cm <sup>2</sup>
I <sub>CEO</sub>	Collector dark current	-	-	100	nA	V <sub>CE</sub> =10V, E <sub>e</sub> =0
V <sub>(BR)CEO</sub>	Collector-emitter breakdown	25	-	-	V	I <sub>C</sub> =100μA
t <sub>r</sub> , t <sub>f</sub>	Output rise and fall time <sup>(2)</sup>	-	5	-	μs	I <sub>C</sub> =0.8mA
θ <sub>HP</sub>	Total angle at half sensitivity points	-	18	-	deg.	

- notes:**
1. Radiation source is an aluminum gallium arsenide IRED operating at a peak emission wavelength of 850nm.
  2. V<sub>CC</sub>=5V, R<sub>L</sub>=1kΩ.

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

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