

CLR130W, CLR131W, CLR132W

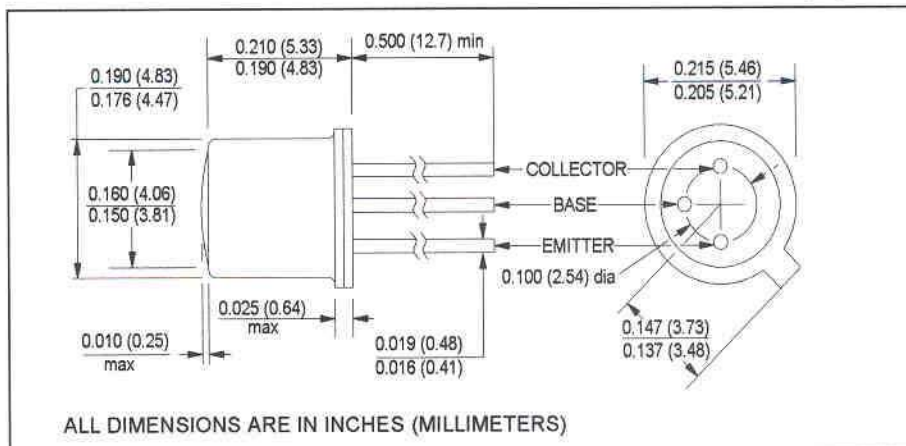
NPN Silicon Photodarlington

CLR130W, CLR131W, and CLR132W are exact replacements for obsolete part numbers CLR2049, CLR2050 and CLR2060.



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features

- high sensitivity
- 70° acceptance angle
- TO-18 hermetically sealed package
- transistor base is bonded

description

The CLR130W-CLR132W series are NPN silicon photodarlington mounted in TO-18 flat window packages. The wide acceptance angle provided by the flat window enables even reception over a relatively large area. Photodarlington allow high sensitivity at low irradiance levels. These devices are mechanically and spectrally matched to the CLE130-CLE133 series IREDs. For additional information, call Clairex.

absolute maximum ratings ($T_A = 25^\circ\text{C}$ 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.....	30V
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 2.5mW/°C from 25°C free air temperature to $T_A = +125^\circ\text{C}$.

electrical characteristics ($T_A = 25^\circ\text{C}$ unless otherwise noted)

symbol	parameter	min	typ	max	units	test conditions
I_L	Light current ⁽¹⁾					
	CLR130W	2.0	-	-	mA	$V_{CE}=5V, E_e=0.6\text{mW}/\text{cm}^2$
	CLR131W	6.0	-	-	mA	
	CLR132W	14.0	-	-	mA	
I_{CEO}	Collector dark current	-	-	100	nA	$V_{CE}=10V, E_e=0$
$V_{(BR)CEO}$	Collector-emitter breakdown	30	-	-	V	$I_C=100\mu A$
t_r	Output rise time	-	100	-	μs	$V_{CC}=5V, R_L=100\Omega$
t_f	Output fall time	-	150	-	μs	$V_{CC}=5V, R_L=100\Omega$
θ_{HP}	Total angle at half sensitivity points	-	70	-	deg.	

note: 1. Radiation source for all light current testing is a 940nm IRED.

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

