CLR130W,CLR131W,CLR132W

NPN Silicon Photodarlingtons

CLR130W, CLR131W, and CLRW132 are exact replacements for obsolete part numbers CLR2049, CLR2050 and CLR2060.

Clairex® Technologies, Inc.

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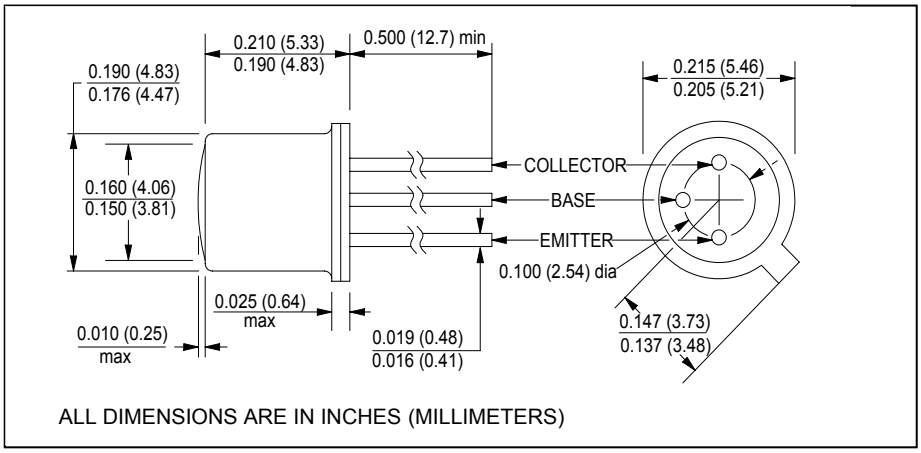

features

- high sensitivity
- ±35° acceptance angle
- TO-18 hermetically sealed package
- transistor base is bonded
- RoHS compliant

description

The CLR130W-CLR132W series are NPN silicon photodarlingtons mounted in TO-18 flat window packages. The wide acceptance angle provided by the flat window enables even reception over a relatively large area. Photodarlingtons 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°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	15V
continuous collector current	50mA
continuous power dissipation[2]	250mW

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]	CLR130W	0.2	-	-	mA	V_{CE}=5V, E_e=0.06mW/cm^2
		CLR131W	0.6	-	-	mA	
		CLR132W	1.4	-	-	mA	
I_{CEO}	Collector dark current		-	-	100	nA	V_{CE}=10V, E_e=0
$V_{(BR)CEO}$	Collector-emitter breakdown		15	-	-	V	I_C=100µA
t_r	Output rise time		-	100	-	µs	V_{CE}=5V, R_L=100Ω.
t_f	Output fall time		-	150	-	µs	V_{CE}=5V, R_L=100Ω.
θ_{HP}	Total angle at half sensitivity points		-	70	-	deg.	

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

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