



Technical Data Sheet

Infrared LED

ZPTP28C



Descriptions

The ZPTP28C is a high speed and high sensitive NPN silicon phototransistor molded in a standard $\phi 5$ mm package. Due to its clear epoxy the device is sensitive to visible and near infrared radiation.

Features

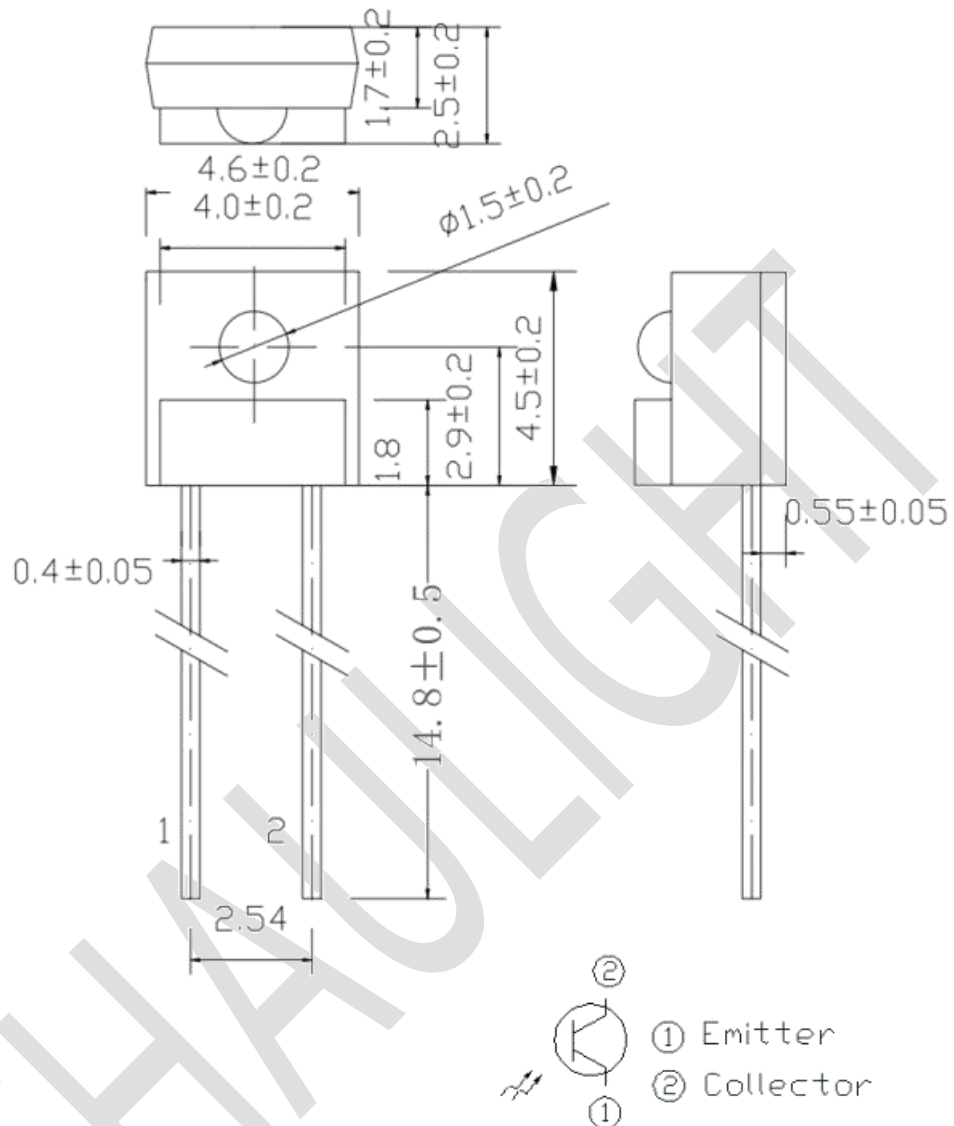
- Fast response time
- High photo sensitivity
- Pb.Free
- This product itself will remain within RoHS compliant version.

Applications

- Infrared applied system
- Optoelectronic switch
- Copiers
- Scanners
- Amusement machines



Package Dimension



Notes:

1. All dimensions are in millimeters
2. Tolerances unless dimensions $\pm 0.3\text{mm}$
3. Lead spacing is measured where the lead emerge from the package



Absolute Maximum Ratings

Parameter (Ta=25°C)	Symbol	Ratings	Unit
Power Dissipation at(or below) 25 Free Air Temperature	Pd	75	mW
Collector-Emitter Voltage	V _{CEO}	30	V
Emitter-Collector-Voltage	V _{ECO}	5	V
Operating Temperature	Topr	-25~+85	°C
Storage Temperature	Tstg	-40~+100	°C
Lead Soldering Temperature (2mm form body for 5 seconds)	Tsol	260	°C

Electro-Optical Characteristics

Parameter (Ta=25°C)	Symbol	Condition	Min.	Typ.	Max.	Units
Collector – Emitter Breakdown Voltage	BV _{CEO}	I _C =100μA Ee=0mW/cm ²	30	--	--	V
Emitter-Collector Breakdown Voltage	BV _{ECO}	I _C =100μA Ee=0mW/cm ²	5	--	--	V
Collector-Emitter Saturation Voltage	V _{CE(sat)}	I _C =100μA Ee=0mW/cm ²	--	--	0.4	V
Rise Time	t _r	V _{CE} =5V I _C =1mA R _L =1000Ω	--	15	--	μS
Fall Time	t _f	V _{CE} =5V I _C =1mA R _L =1000Ω	--	15	--	μS
Collector Dark Current	I _{CEO}	Ee=0mW/cm ² V _{CE} =20V	--	--	100	nA
On State Collector Current	I _{C(ON)}	Ee=0.555mW/cm ² V _{CE} =5V	0.513		3.443	mA
Rang Of Spectral Bandwidth	λ _{0.5}	--	700	--	1100	nm
Wavelength of Peak Sensitivity	λ _P	--	--	940	--	nm

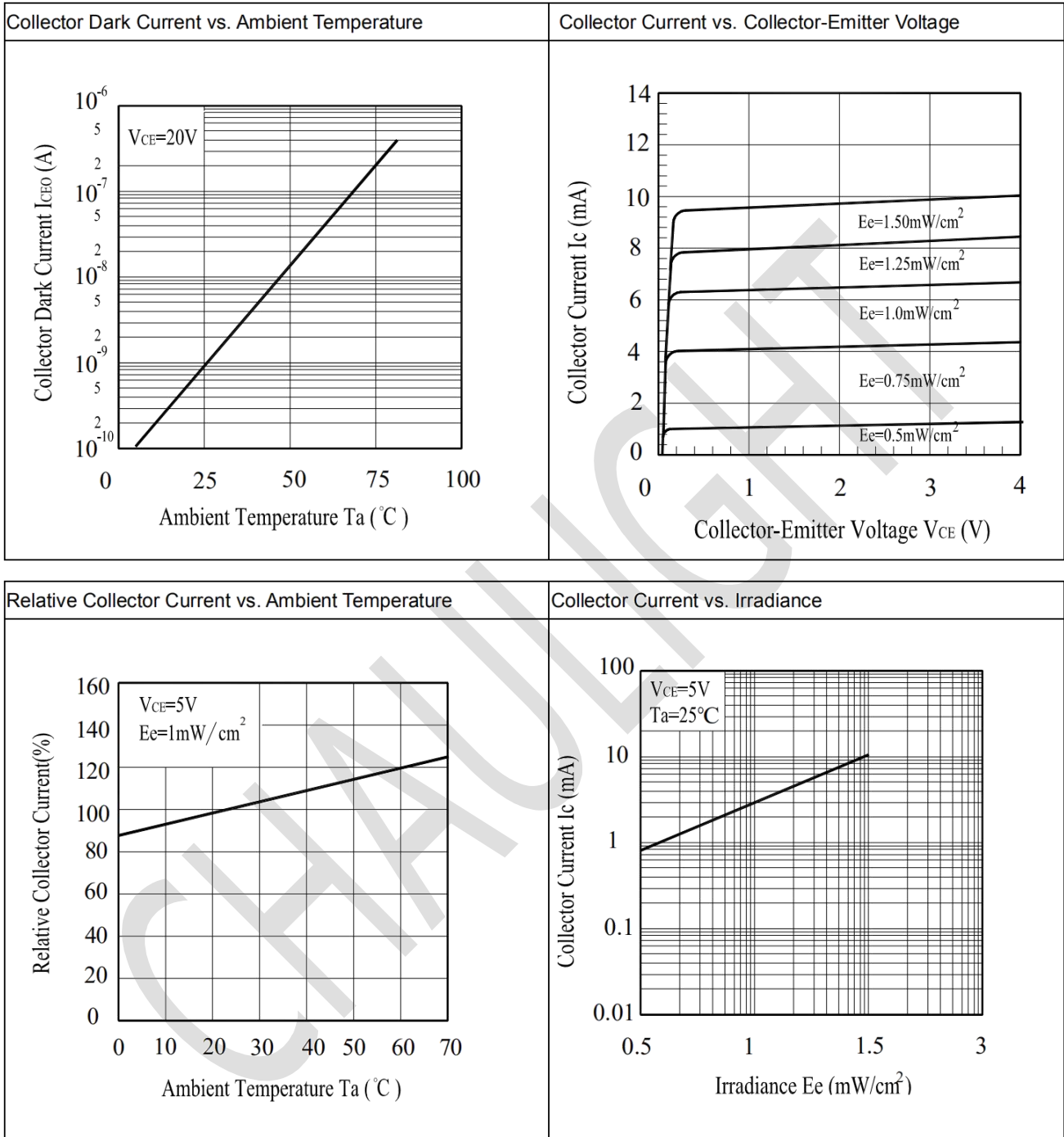


Rank

Parameter	Symbol	Condition	Min.	Max.	Unit
7-3	Ic(ON)	Ee=0.555mW/cm ² V _{CE} =5V	0.513	1.133	mA
7-2	Ic(ON)	Ee=0.555mW/cm ² V _{CE} =5V	0.927	1.606	mA
7-1	Ic(ON)	Ee=0.555mW/cm ² V _{CE} =5V	1.314	2.079	mA
6-2	Ic(ON)	Ee=0.555mW/cm ² V _{CE} =5V	1.701	2.585	mA
6-1	Ic(ON)	Ee=0.555mW/cm ² V _{CE} =5V	2.115	3.443	mA



Typical Electrical/Optical/Characteristics Curves



Packing Quantity

1. 1000PCS/1Bag, 8Bags/1Box
2. 10Boxes/1Carton