



### Technical Data Sheet

### Infrared LED

### ZIRP28C



### Descriptions

The ZIRP28C is a high intensity diode, molded in a water clear plastic package. The miniature side-facing device has a chip, that emits radiation from the side of the clear package.

### Features

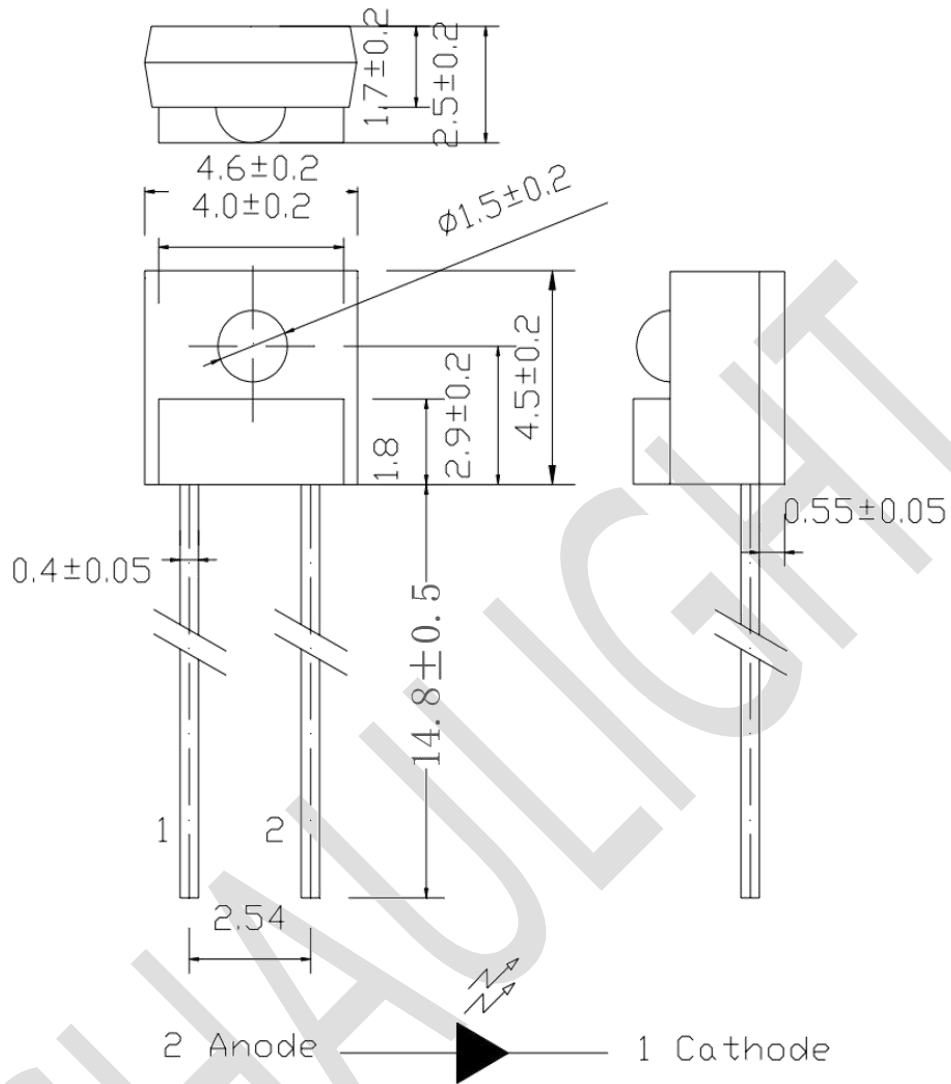
- High reliability
- High radiant intensity
- Peak wavelength  $\lambda_p=940\text{nm}$
- Low forward voltage
- Pb.Free
- This product itself will remain within RoHS compliant version.

### Applications

- Mouse
- Optoelectronic switch
- Copiers
- Scanners
- Amusement machines



### Package Dimension



#### Notes:

1. All dimensions are in millimeters
2. Tolerances unless dimensions  $\pm 0.3$  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°C cfree Air Temperature	Pd	75	mW
Reverse Voltage	V <sub>R</sub>	5	V
Forward Current	I <sub>F</sub>	50	mA
Peak Forward Current Pulse width ≤ 100μs,Duty cycle= 1%	I <sub>FP</sub>	1	A
Operating Temperature	Topr	-40~+85	°C
Storage Temperature	Tstg	-40~+100	°C
Lead Soldering Temperature (2mm form body for 5 seconds)	Tsol	260	°C

### Electro-Optical Characteristics

Paramete (Ta=25°C)	Symbol	Condition	Min.	Typ.	Max.	Units
Light Current	I <sub>c</sub> (ON)	I <sub>F</sub> =4mA,V <sub>CE</sub> =3.5V	650	--	1274	μA
Peak Wavelength	λ <sub>p</sub>	I <sub>F</sub> =20mA	--	940	--	nm
Spectral Bandwidth	Δλ	I <sub>F</sub> =20mA	--	45	--	nm
Forward Voltage	V <sub>F</sub>	I <sub>F</sub> =20mA	--	1.2	1.5	V
Reverse Current	I <sub>R</sub>	V <sub>R</sub> =5V	--	--	10	μA
View Angle	2θ1/2	I <sub>F</sub> =20mA	--	40	--	deg
Radiant Intensity	IE	I <sub>F</sub> =20mA	3.89	3.97	4.05	mW/sr
Radiant Intensity	IE	I <sub>F</sub> =30mA	6.37	6.45	6.46	mW/sr



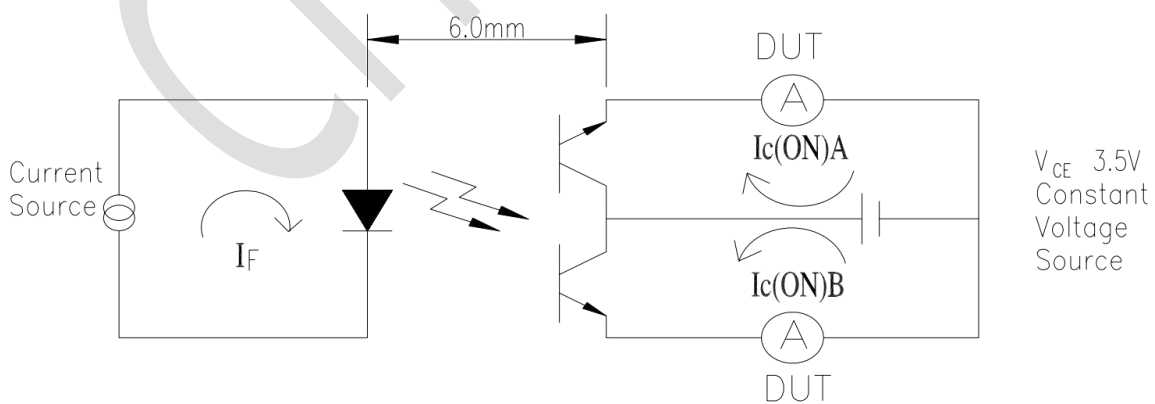
### Rank

Parameter	Symbol	Condition	Min.	Max.	Unit
6-1	I <sub>c(ON)</sub>	I <sub>F</sub> =4mA, V <sub>CE</sub> =3.5V	650	1274	μA

### Test Method For I<sub>c(ON)</sub>:

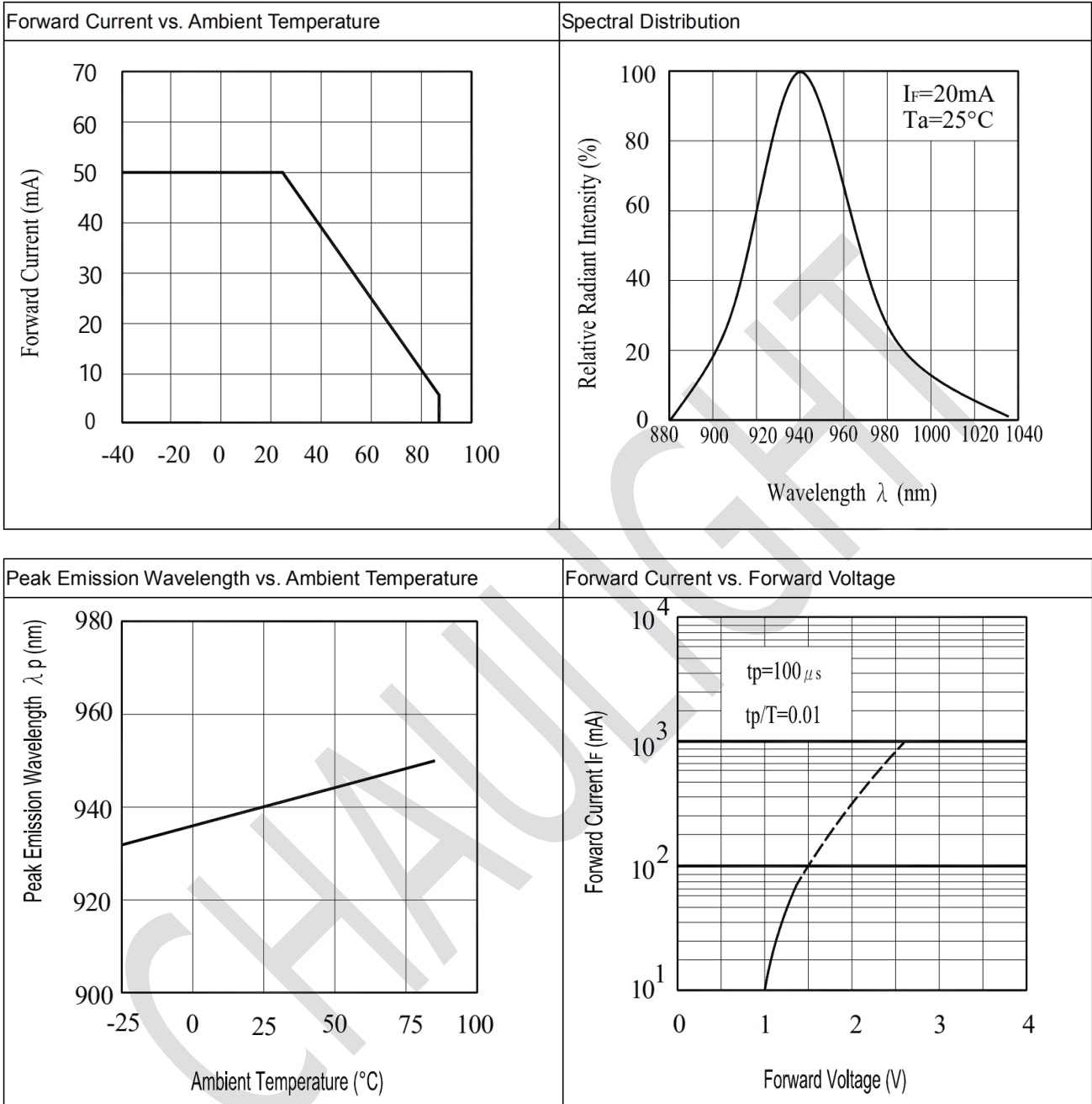
Condition: I<sub>F</sub>=4mA, V<sub>CE</sub>=3.5V

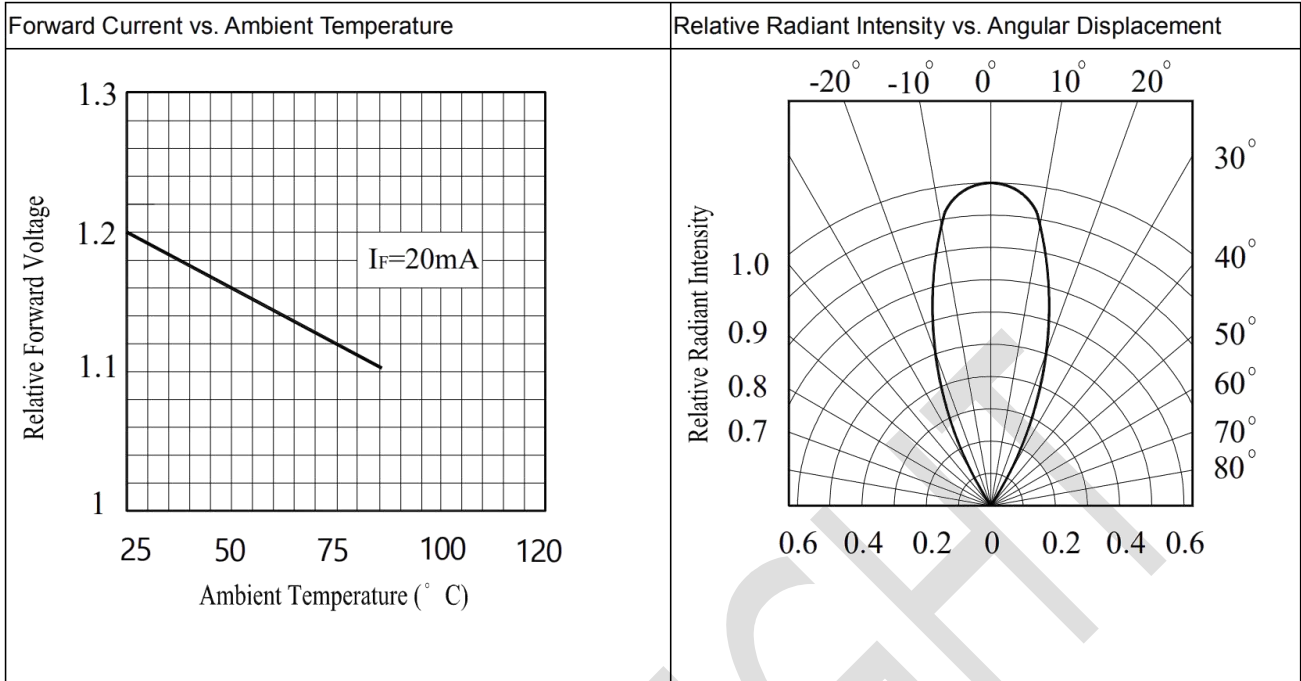
The intensity testing method for infrared emitting diode





### Typical Electrical/Optical/Characteristics Curves





## Packing Quantity Specification

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