

Part Number: WP3A10SF4C

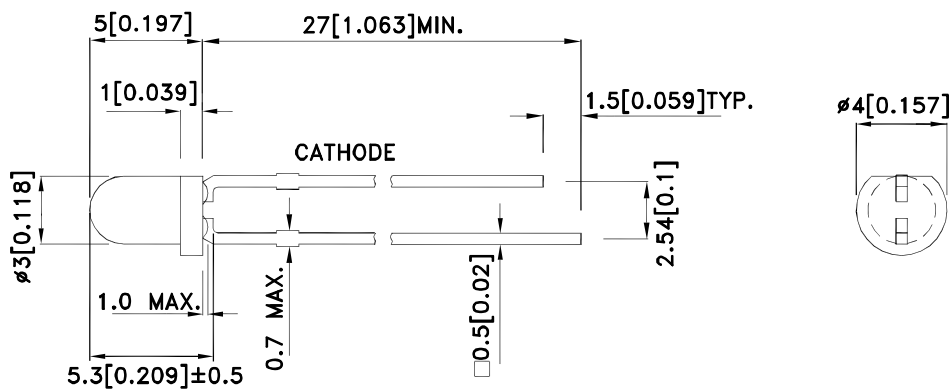
### Features

- Mechanically and spectrally matched to the phototransistor.
- RoHS compliant.

### Description

SF4 Made with Gallium Aluminum Arsenide Infrared Emitting diodes.

### Package Dimensions



#### Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is  $\pm 0.25(0.01)$ " unless otherwise noted.
3. Lead spacing is measured where the leads emerge from the package.
4. The specifications, characteristics and technical data described in the datasheet are subject to change without prior notice.



## Selection Guide

Part No.	Dice	Lens Type	Po (mW/sr) [2] @ 20mA *50mA		Viewing Angle [1]
			Min.	Typ.	2 $\theta$ 1/2
WP3A10SF4C	SF4 (GaAlAs)	Water Clear	7	40	50°
			*18	*55	

Notes:

1.  $\theta$ 1/2 is the angle from optical centerline where the luminous intensity is 1/2 of the optical peak value.
2. \* Luminous intensity with asterisk is measured at 50mA; Radiant Intensity/ luminous flux: +/-15%.

## Electrical / Optical Characteristics at TA=25°C

Parameter	P/N	Symbol	Typ.	Max.	Units	Test Conditions
Forward Voltage [1]	SF4	V <sub>F</sub>	1.3	1.6	V	I <sub>F</sub> =20mA
Reverse Current	SF4	I <sub>R</sub>		10	uA	V <sub>R</sub> = 5V
Capacitance	SF4	C	90		pF	V <sub>F</sub> =0V;f=1MHz
Peak Spectral Wavelength	SF4	$\lambda$ P	880		nm	I <sub>F</sub> =20mA
Spectral Bandwidth	SF4	$\Delta\lambda$ 1/2	50		nm	I <sub>F</sub> =20mA

Note:

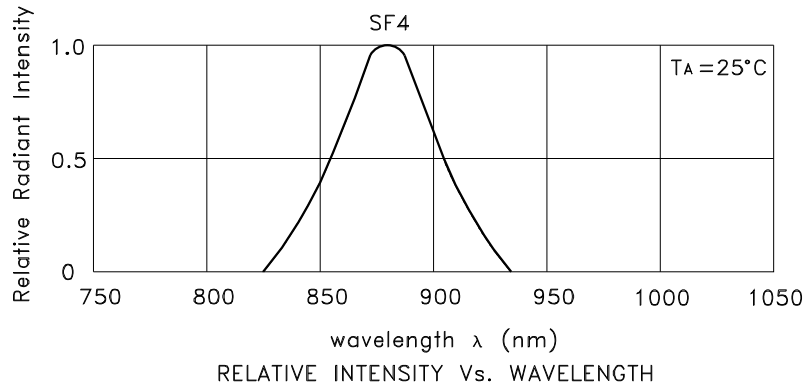
1. Forward Voltage: +/-0.1V.

## Absolute Maximum Ratings at TA=25°C

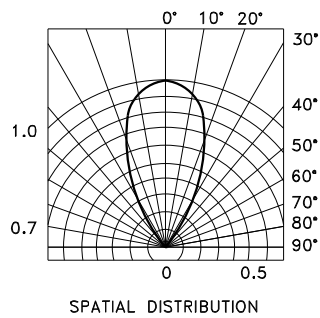
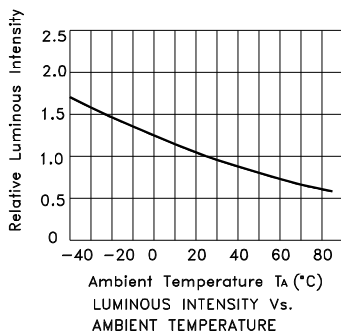
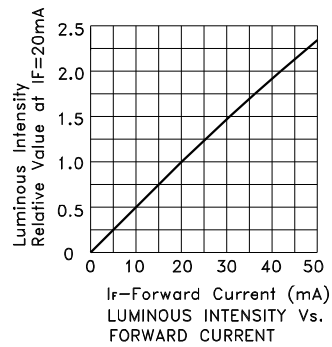
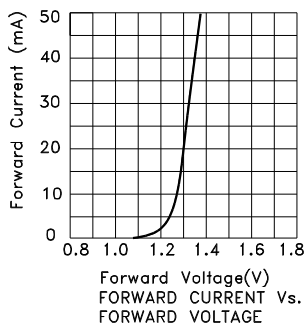
Parameter	Symbol	SF4	Units
Power dissipation	P <sub>D</sub>	80	mW
DC Forward Current	I <sub>F</sub>	50	mA
Peak Forward Current [1]	i <sub>FS</sub>	1.2	A
Reverse Voltage	V <sub>R</sub>	5	V
Operating Temperature	T <sub>A</sub>	-40 To +85	°C
Storage Temperature	T <sub>STG</sub>	-40 To +85	°C
Lead Solder Temperature [2]		260°C For 3 Seconds	
Lead Solder Temperature [3]		260°C For 5 Seconds	

Notes:

1. 1/100 Duty Cycle, 10 $\mu$ s Pulse Width.
2. 2mm below package base.
3. 5mm below package base.



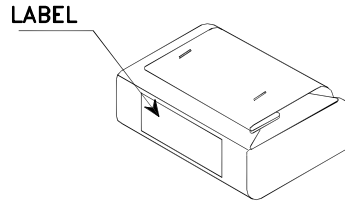
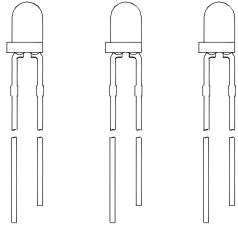
## WP3A10SF4C



# Kingbright

## PACKING & LABEL SPECIFICATIONS

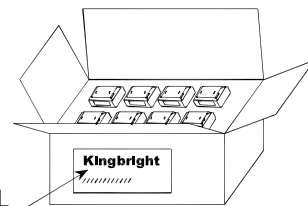
WP3A10SF4C




1,000PCS / BAG



56K / 9# BOX



28K / 5# BOX

<h1>Kingbright</h1>	
P/NO: WP3A10XXX	
QTY: 1,000 pcs	Q.C. <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">Q C XX XX XXXX PASSED</span>
S/N: XXXX	
CODE: XXX	
LOT NO:	
 <small>XXXXXXXXXXXXXXXXXXXXXXXXXXXX</small>	
RoHS Compliant	

## LED MOUNTING METHOD

1. The lead pitch of the LED must match the pitch of the mounting holes on the PCB during component placement. Lead-forming may be required to insure the lead pitch matches the hole pitch. Refer to the figure below for proper lead forming procedures.

(Fig. 1)



Fig.1

“O” Correct mounting method “X” Incorrect mounting method

Note 1-2 : Do not route PCB trace in the contact area between the leadframe and the PCB to prevent short-circuits.

2. When soldering wire to the LED, use individual heat-shrink tubing to insulate the exposed leads to prevent accidental contact short-circuit.

(Fig. 2)

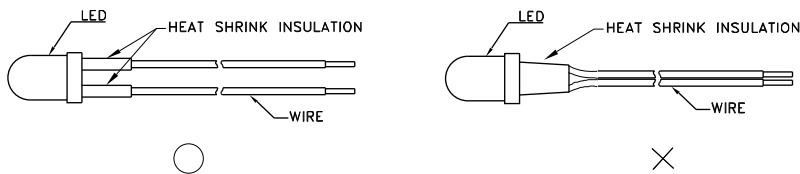


Fig. 2

3. Use stand-offs (Fig. 3) or spacers (Fig. 4) to securely position the LED above the PCB.



Fig. 3



Fig. 4

## LEAD FORMING PROCEDURES

1. Maintain a minimum of 2mm clearance between the base of the LED lens and the first lead bend. (Fig. 5 and 6)

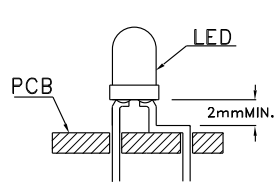


Fig. 5



Fig. 6

2. Lead forming or bending must be performed before soldering, never during or after Soldering.
3. Do not stress the LED lens during lead-forming in order to fractures in the lens epoxy and damage the internal structures.
4. During lead forming, use tools or jigs to hold the leads securely so that the bending force will not be transmitted to the LED lens and its internal structures. Do not perform lead forming once the component has been mounted onto the PCB. (Fig. 7)
5. Do not bend the leads more than twice. (Fig. 8)



Fig. 7

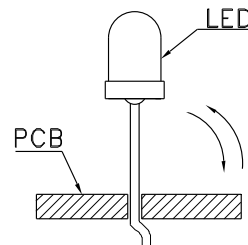


Fig. 8

6. After soldering or other high-temperature assembly, allow the LED to cool down to 50°C before applying outside force (Fig. 9). In general, avoid placing excess force on the LED to avoid damage. For any questions please consult with Kingbright representative for proper handling procedures.

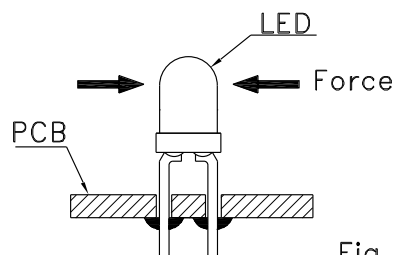


Fig. 9



Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



#### Как с нами связаться

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