

PHOTOTRANSISTOR

Part Number: WP7113P3BT

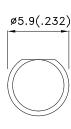
Features

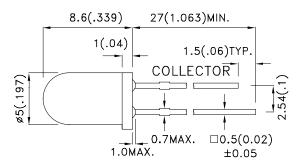
- MECHANICALLY AND SPECTRALLY MATCHED TO THE INFRARED EMITTING LED LAMP .
- BLUE TRANSPARENT LENS.
- RoHS COMPLIANT.

Description

Made with NPN silicon phototansistor chips.

Package Dimensions





- 1. All dimensions are in millimeters (inches).
- 2. Tolerance is $\pm 0.25(0.01")$ unless otherwise noted.
- Lead spacing is measured where the leads emerge from the package.
 Specifications are subject to change without notice.





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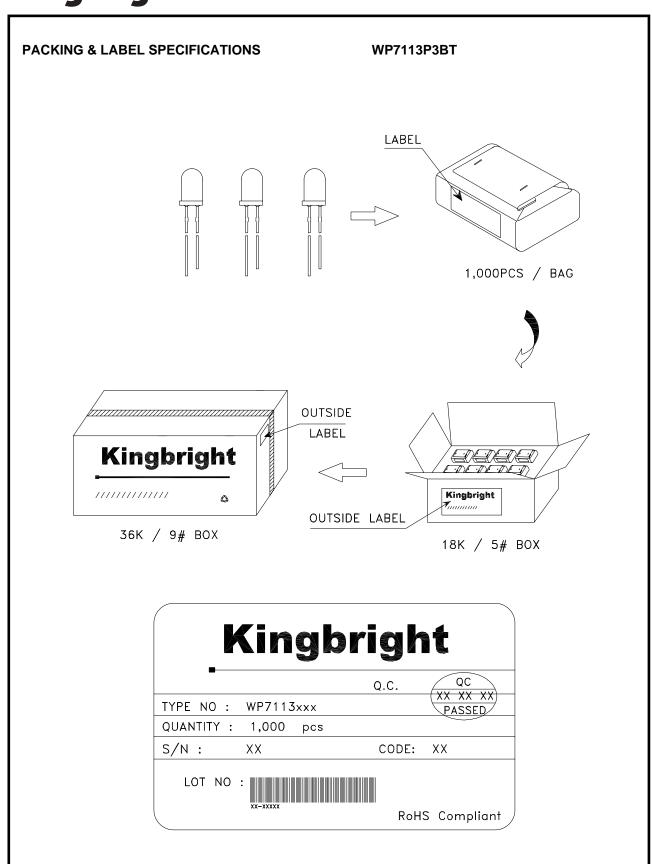
Electrical / Optical Characteristics at TA=25°C

Symbol	Parameter	Min.	Тур.	Max.	Units	Test Conditions
VBR CEO	Collector-to-Emitter Breakdown Voltage	30			V	Ic=100uA Ee=0mW/c m²
VBR ECO	Emitter-to-Collector Breakdown Voltage	5			V	IE=100uA Ee=0mW/c m³
VCE (SAT)	Collector-to-Emitter Saturation Voltage			0.8	V	Ic=2mA Ee=20mW/c m²
I CEO	Collector Dark Current			100	nA	Vc=10V Ee=0mW/c m³
TR	Rise Time (10% to 90%)		15		us	VCE = 5V IC=1mA RL=1000Ω
TF	Fall Time (90% to 10%)		15		us	
I (ON)	On State Collector Current	0.7	3		mA	VcE = 5V Ee=1mW/c m ² λ=940nm

Absolute Maximum Ratings at TA=25°C

Parameter	Max.Ratings			
Collector-to-Emitter Voltage	30V			
Emitter-to-Collector Voltage	5V			
Power Dissipation at (or below) 25°C Free Air Temperature	100mW			
Operating Temperature	-40°C To +85°C			
Storage Temperature	-40°C To +85°C			
Lead Soldering Temperature (>5mm for 5sec)	260°C			

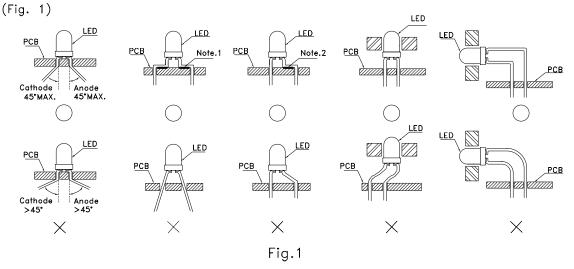
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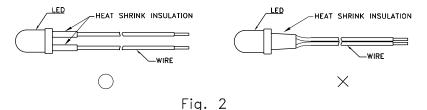
LED MOUNTING METHOD

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.

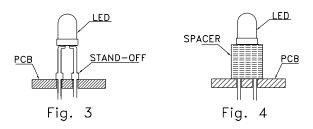


" \bigcirc " Correct mounting method " \times " Incorrect mounting method Note 1-2: Do not route PCB trace in the contact area between the leadframe and the PCB to prevent short-circuits.

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)



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



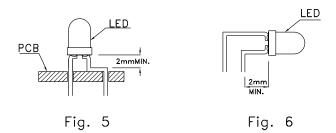
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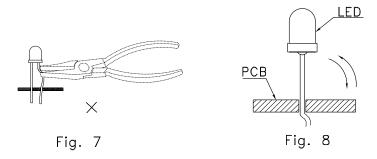
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LEAD FORMING PROCEDURES

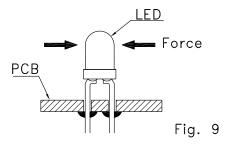
1. Maintain a minimum of 2mm clearance between the base of the LED lens and the first lead bend. (Fig. 5 and 6)



- 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)



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.



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