

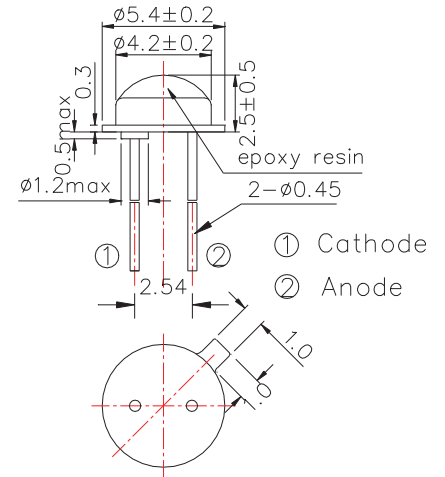
## Specifications:

<b>Product:</b>	Infrared LED lamp
<b>Product Description:</b>	Stem type LED with epoxy resin lens
<b>Material:</b>	AlGaAs
<b>Stem:</b>	TO-46 with reflector
<b>Peak Wavelength:</b>	850 nm
<b>Output Power:</b>	44 mW

## Features:

- Ultra-wide viewing angle
- High efficiency
- High reliability
- Lead-free - RoHS compliant

## Dimensions (mm):



## Absolute Maximum Ratings:

Parameter	Symbol	Maximum Rated Value	Ambient Temperature
Power Dissipation	P <sub>D</sub>	160 mW	T <sub>a</sub> = 25 °C
Forward Current	I <sub>F</sub>	100 mA	T <sub>a</sub> = 25 °C
Pulse Forward Current <sup>1</sup>	I <sub>FP</sub>	1000 mA	T <sub>a</sub> = 25 °C
Reverse Voltage	V <sub>R</sub>	5 V	T <sub>a</sub> = 25 °C
Junction Temperature	T <sub>J</sub>	100 °C	
Thermal Resistance	R <sub>thja</sub>	240 K/W	
Operating Temperature	T <sub>OPR</sub>	-30 ~ +80 °C	
Storage Temperature	T <sub>STG</sub>	-30 ~ +100 °C	
Soldering Temperature <sup>2</sup>	T <sub>SOL</sub>	265 °C	

## Electro-Optical Characteristics:

Parameter	Symbol	Condition	Minimum	Typical	Maximum
Forward Voltage	V <sub>F</sub>	I <sub>F</sub> = 50 mA DC		1.45 V	1.6 V
		I <sub>F</sub> = 100 mA, t <sub>p</sub> = 20 ms		1.50 V	1.7 V
Reverse Current	I <sub>R</sub>	V <sub>R</sub> = 5 V			10 uA
Total Radiated Power <sup>3</sup>	P <sub>O</sub>	I <sub>F</sub> = 50 mA DC	16 mW	22 mW	
		I <sub>F</sub> = 100 mA, t <sub>p</sub> = 20 ms		44 mW	
Radiant Intensity <sup>4</sup>	I <sub>E</sub>	I <sub>F</sub> = 50 mA DC		8 mW / sr	
		I <sub>F</sub> = 100 mA, t <sub>p</sub> = 20 ms		16 mW / sr	
Peak Wavelength	λ <sub>P</sub>	I <sub>F</sub> = 50 mA DC	840 nm	850 nm	860 nm
Half Width	Δλ	I <sub>F</sub> = 50 mA DC		40 nm	
Viewing Half Angle	θ <sub>1/2</sub>	I <sub>F</sub> = 50 mA DC		±60°	
Rise Time	t <sub>r</sub>	I <sub>F</sub> = 50 mA DC		15 ns	
Fall Time	t <sub>f</sub>	I <sub>F</sub> = 50 mA DC		10 ns	

## Notes:

1. Duty = 1% and Pulse Width = 10 us.
2. Soldering condition must be completed within 3 seconds at 265 °C
3. Measured by Photodyne #500.
4. Measured by Tektronix J-6512.