

BEELED

TECHNOLOGY DATA SHEET & SPECIFICATIONS

MODEL: 5034B2D-ESB-C

Features

- High efficiency
- Low Power consumption
- General purpose leads
- Selected minimum intensities
- Available on tape and reel
- Pb free



Descriptions

- The series is specially designed for applications requiring higher brightness
- The LED lamps are available with different colors, intensities, epoxy colors, etc
- Superior performance in outdoor environment

Usage Notes:

- The ultra bright LED is an electrostatic insensitive device, so static electricity and surge will damage the LED. It is required to wear a wrist-band when handling the LED. All device, equipment, machinery, desk and ground must be properly grounded
- When using LED, it must use a protective resistor in series with DC current about 20mA

Applications

- Status indicators
- Commercial use
- Advertising Signs
- Back lighting

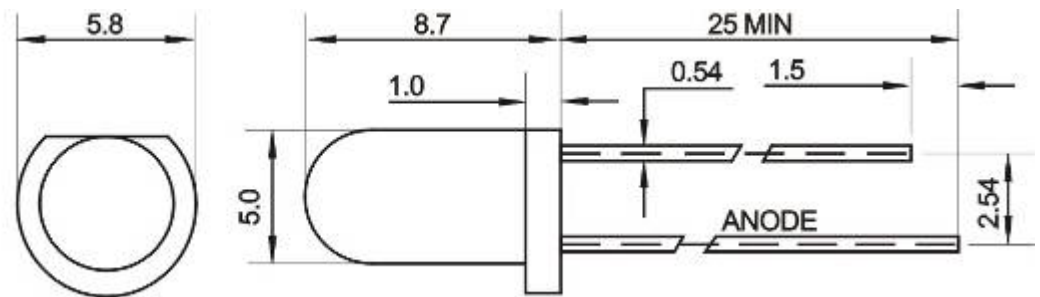
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Device Selection Guide

LED Part No.	Chip		Lens Color
	Material	Emitted Color	
5034B2D-ESB-C	InGaN	Blue	Color Diffused

Package Dimensions



UNIT:mm

Notes:

- Other dimensions are in millimeters, tolerance is 0.25mm except being specified.
- Protruded resin under flange is 1.5mm Max LED.
- Bare copper alloy is exposed at tie-bar portion after cutting.



TECHNOLOGY DATA SHEET & SPECIFICATIONS

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Absolute Maximum Rating ($T_a=25^{\circ}\text{C}$)

Parameter	Symbol	Absolute Maximum Rating	Unit
Forward Pulse Current	I_{FPM}	70	mA
Forward Current	I_{FM}	30	mA
Reverse Voltage	V_{R}	5	V
Power Dissipation	P_{D}	140	mW
Operating Temperature	T_{opr}	-40~+80	$^{\circ}\text{C}$
Storage Temperature	T_{stg}	-40~+100	$^{\circ}\text{C}$
Soldering Heat (5s)	T_{sol}	260	$^{\circ}\text{C}$

Electro-Optical Characteristics ($T_a=25^{\circ}\text{C}$)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition
Luminous Intensity	I_{v}	2000		3500	mcd	IF=20mA(Note1)
Viewing Angle	$2\theta_{1/2}$	50	---	60	Deg	(Note 2)
Peak Emission Wavelength	λ_{p}	460	465	470	nm	IF=20mA
Spectral Line Half-Width	$\Delta\lambda$	25	30	35	nm	IF=20mA
Forward Voltage	V_{F}	2.9	---	3.5	V	IF=20mA
Reverse Current	I_{R}	---	---	10	μA	VR=5V

Note:

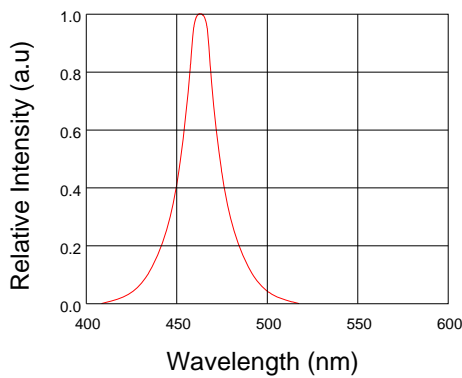
1. Luminous intensity is measured with a light sensor and filter combination that approximates the CIE eye-response curve.
2. $\theta_{1/2}$ is the off-axis angle at which the luminous intensity is half the axial luminous intensity.

TECHNOLOGY DATA SHEET & SPECIFICATIONS

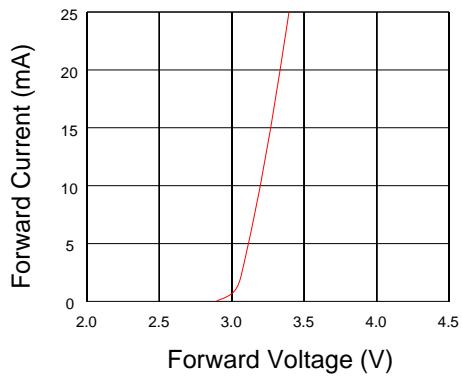
MODEL: 5034B2D-ESB-C

Typical Electro-Optical Characteristics Curves

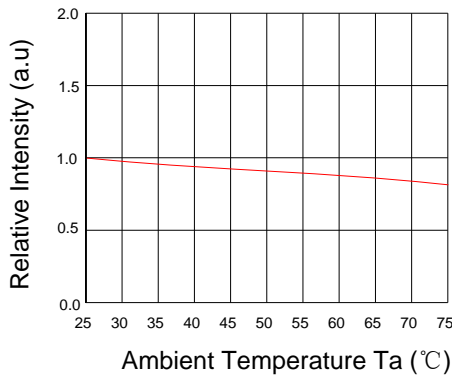
Relative Intensity VS. Wavelength



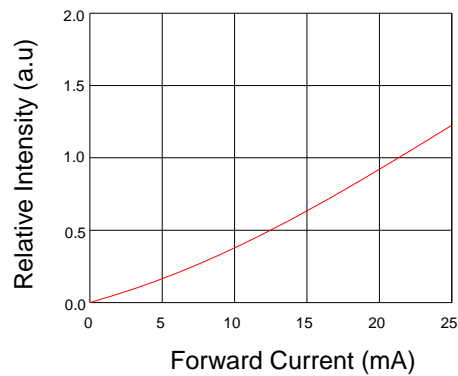
Forward Current VS. Forward Voltage



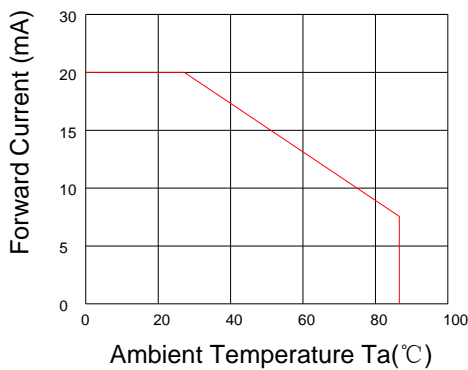
Relative Intensity VS. Ambient Temp



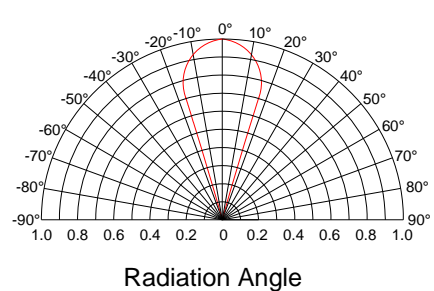
Forward Current VS. Relative Intensity



Forward Current VS. Ambient Temp.



Radiation Characteristics





TECHNOLOGY DATA SHEET & SPECIFICATIONS

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Notes

1. Above specification may be changed without notice. Hyled will reserve authority on material change for above specification.
2. When using this product, please observe the absolute maximum ratings and the instructions for using outlined in these specification sheets. Hyled assumes no responsibility for any damage resulting from use of the product which does not comply with the absolute maximum ratings and the instructions included in these specification sheets.
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