

BEELED

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MODEL: 5234B2C-ESB-B

Features

- High luminous intensity output
- Oval Shape
- Well defined spatial radiation
- Wide viewing angle($2\theta_{1/2}$): 70° / 30°
- UV resistant epoxy
- Pb free



Descriptions

- This precision optical performance oval LED is specifically designed for passenger information signs
- This lamp has matched radiation patterns with,Red Or green color mixing color applications
- 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

- Full color/video signs
- Message boards
- Variable message signs(VMS)
- Commercial outdoor advertising

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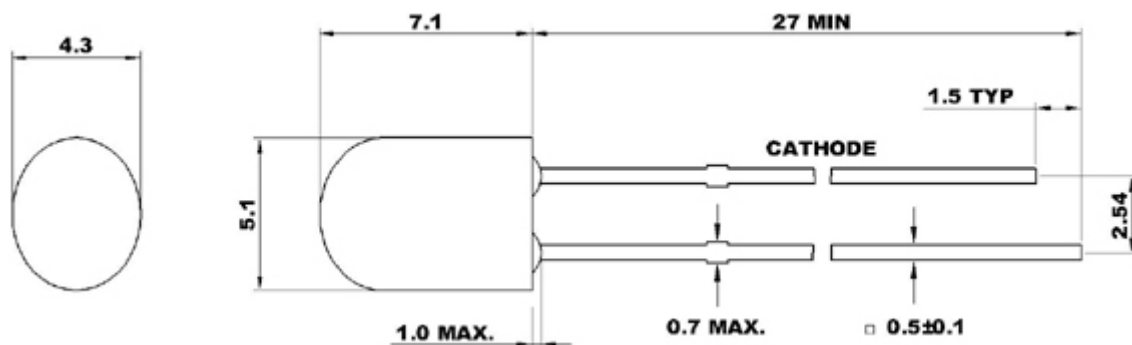
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Device Selection Guide

LED Part No.	Chip		Lens Color
	Material	Emitted Color	
5234B2C-ESB-B	InGaN	Blue	Water clear

Package Dimensions



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.



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

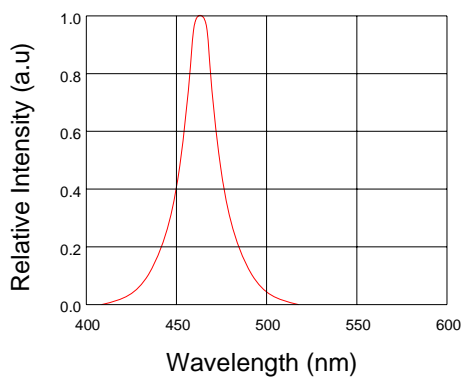
Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition
Luminous Intensity	I_{v}	1500	---	2300	mcd	$I_{\text{F}}=20\text{mA}$ (Note1)
Viewing Angle	$2\theta_{1/2}$	---	X:70° Y:30°	---	Deg	(Note 2)
Peak Emission Wavelength	λ_{p}	460	465	470	nm	$I_{\text{F}}=20\text{mA}$
Spectral Line Half-Width	$\Delta\lambda$	20	25	30	nm	$I_{\text{F}}=20\text{mA}$
Forward Voltage	V_{F}	2.9	---	3.3	V	$I_{\text{F}}=20\text{mA}$
Reverse Current	I_{R}	---	---	10	μA	$V_{\text{R}}=5\text{V}$

Note:

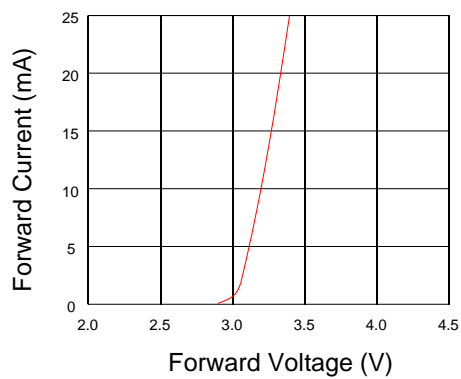
1. Luminous intensity is measured with a light sensor and filter combination that approximates the CIE eye-response curve.
2. $\theta_{1/2}$ is the off-axis angle at which the luminous intensity is half the axial luminous intensity.

Typical Electro-Optical Characteristics Curves

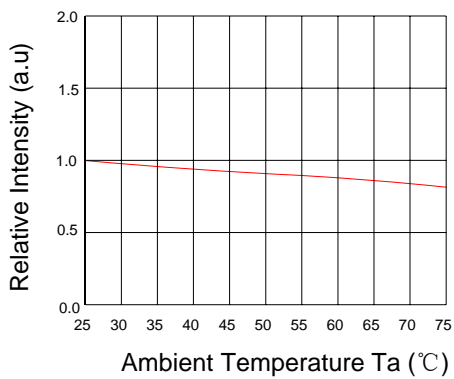
Relative Intensity VS. Wavelength



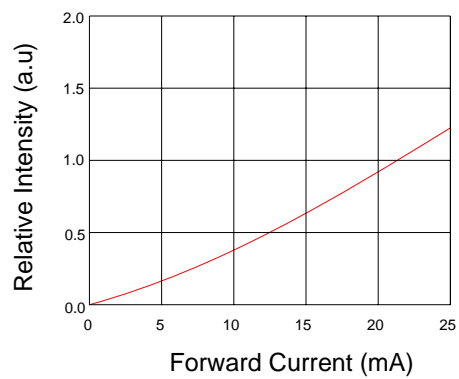
Forward Current VS. Forward Voltage



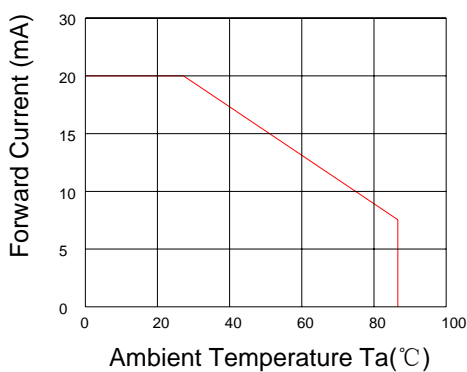
Relative Intensity VS. Ambient Temp



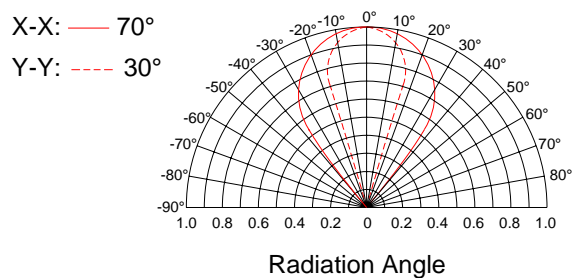
Forward Current VS. Relative Intensity



Forward Current VS. Ambient Temp.



Radiation Characteristics





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- 2. , .
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