



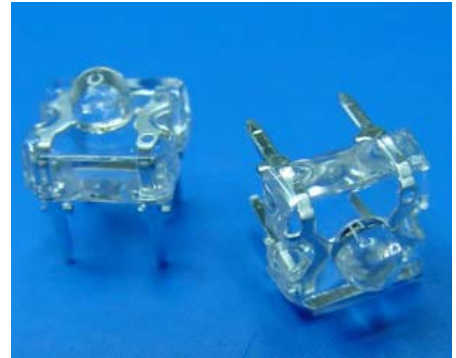
Technical Data Sheet

POWER LED

31-01UBGC/MB

Features

- . High Flux Output.
- . Designed for High Current Operation.
- . Low Thermal Resistance.
- . Low Profile.
- . Viewing angle 40°
- . Packaged in Tubes for Use with Automatic Insertion Equipment.
- . The product itself will remain within RoHS compliant version.



Descriptions

This revolutionary package design allows the light designer to reduce the number of LEDs required and provide a more uniform and unique illuminated appearance than with other LED solutions. This is possible through the efficient optical package design and high-current capabilities.

The low profile package can be easily coupled with reflectors or lenses to efficiently distribute light and provide the desired light appearance.

Applications

- . Automotive Exterior Lighting
- . Electronic Signs and Signals
- . Special Lighting application

Device Selection Guide

PART NO.	Chip		Lens Color
	Material	Emitted Color	
31-01UBGC/MB	GaN/SiC	Bluish Green	Water Clear

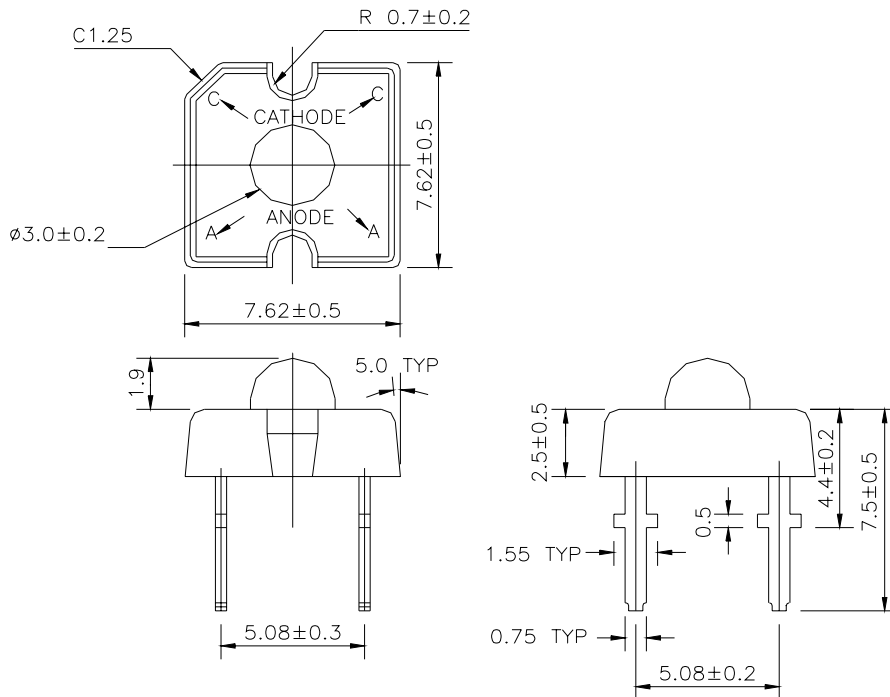
Package Dimensions



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- Notes:**
1. All dimensions are in millimeters
 2. An epoxy meniscus may extend about 1.5mm(0.059") down the leads
 3. Tolerances unless dimensions $\pm 0.25\text{mm}$

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

Parameter	Symbol	Rating	Units
Continuous Forward Current	I_F	30	mA
Peak Forward Current(Duty 1/10 @ 1KHZ)	I_{FP}	100	mA
Reverse Voltage	V_R	5	V
Operating Temperature	T_{opr}	-40 ~ +85	$^\circ\text{C}$
Storage Temperature	T_{stg}	-40 ~ +100	$^\circ\text{C}$
Soldering Temperature(T=5 sec)	T_{sol}	260 ± 5	$^\circ\text{C}$
Power Dissipation	P_d	129	mW
Electrostatic Discharge	ESD	1000	V

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



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Parameter	Symbol	Min.	Typ.	Max.	Condition	Unit
Total Flux	Φ_v	630	1000	----	$I_F=20\text{mA}$	mlm
Viewing Angle	$2\theta_{1/2}$	----	40	----	$I_F=20\text{mA}$	deg
Peak Wavelength	λ_p	----	502	----	$I_F=20\text{mA}$	nm
Dominant Wavelength	λ_d	----	505	----	$I_F=20\text{mA}$	nm
Spectrum Radiation Bandwidth	$\Delta\lambda$	----	30	----	$I_F=20\text{mA}$	nm
Forward Voltage	V_F	----	3.5	4.4	$I_F=20\text{mA}$	V
Reverse Current	I_R	----	----	50	$V_R=5\text{V}$	μA

Rank

31-01UBGC/MB

 (1) (2) (3)

(1) $V_F(\text{V})$			(2) $\lambda_d(\text{nm})$			(3) $\Phi_v(\text{mlm})$		
Bin	Min	Max	Bin	Min	Max	Bin	Min	Max
0	2.80	3.00	1	499	506	V	630	1250
1	3.00	3.20	2	504	511	W	1000	2000
2	3.20	3.40				X	1600	3200
3	3.40	3.60						
4	3.60	3.80						
5	3.80	4.00						
6	4.00	4.20						
7	4.20	4.40						

*Measurement Uncertainty of Forward Voltage : $\pm 0.1\text{V}$

*Measurement Uncertainty of Luminous Intensity: $\pm 15\%$

Typical Electro-Optical Characteristics Curves

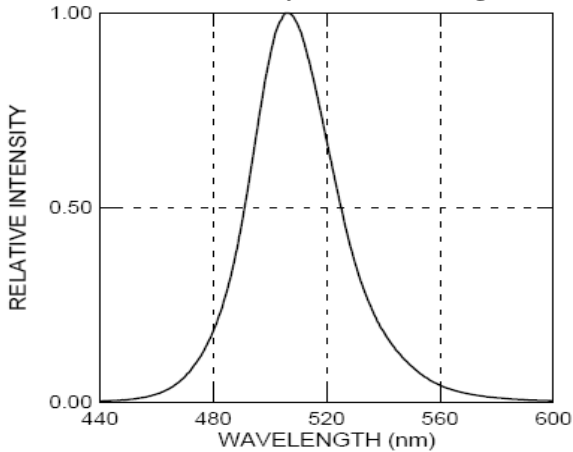


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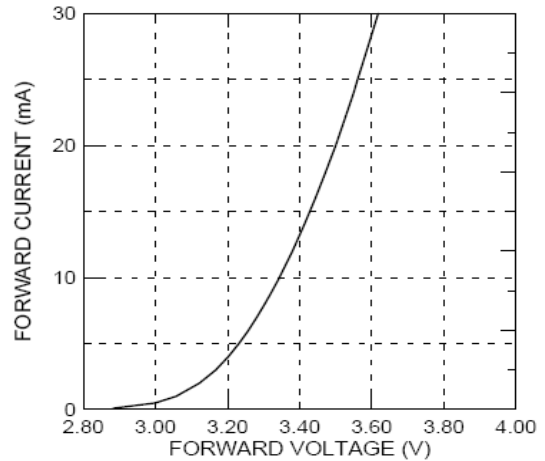
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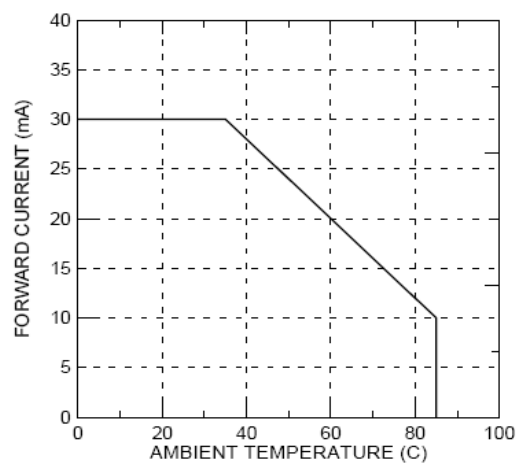
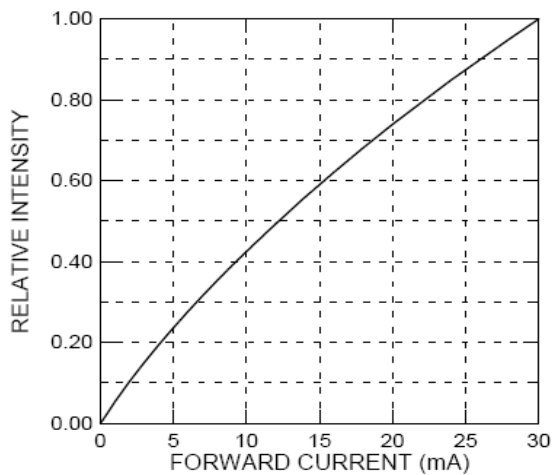
Relative Intensity vs. Wavelength



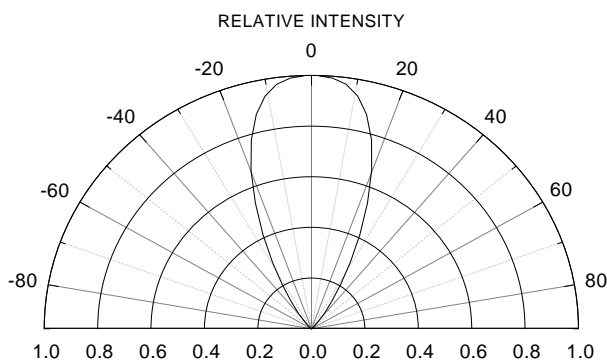
Forward Current vs. Forward Voltage



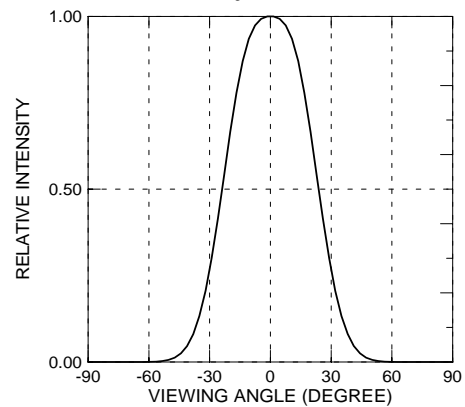
Relative Intensity vs. Forward Current



Relative Intensity vs. Angle Displacement



Relative Intensity vs. Off Axis Angle



Label Form Specification

