

Round Type, FULL COLOR LED lamp

BL-L4815

Features:

- 4.8mm Helmet Type , RGB FULL COLOR LED lamp
- Ultra brightness.
- Choice of various viewing angles.
- Diffused, Transparent and Water clear lens are available.
- IC compatible /Low current capability.
- RoHs Compliance



■ Electrical-optical characteristics: (Ta=25°C) (Test Condition: IF=20mA)

Part Number	Chip			Lens Type	Forward Voltage(VF) Unit:V		Luminous Intensity (Iv) Unit:mcd		Viewing Angle 2θ1/2 (deg)
	Emitted Color	Material	λ _P (nm)						
					Typ	Max	Min.	Typ.	
BL-L4815RGBC-CA	Ultra Red	AlGaInP	630	Water Clear	2.10	2.50	700	1000	80
	Ultra Pure Green	InGaN	525		3.80	4.50	500	1000	
	Ultra Blue	InGaN	470		3.80	4.50	500	1200	
BL-L4815RGBW-CA	Ultra Red	AlGaInP	630	Water Diff.	2.10	2.50	200	500	100
	Ultra Pure Green	InGaN	525		3.80	4.50	300	600	
	Ultra Blue	InGaN	470		3.80	4.50	150	300	
BL-L4815RGBC-CC	Ultra Red	AlGaInP	630	Water Clear	2.10	2.50	700	1000	80
	Ultra Pure Green	InGaN	525		3.80	4.50	500	1000	
	Ultra Blue	InGaN	470		3.80	4.50	500	1200	
BL-L4815RGBW-CC	Ultra Red	AlGaInP	630	Water Diff.	2.10	2.50	200	500	100
	Ultra Pure Green	InGaN	525		3.80	4.50	300	600	
	Ultra Blue	InGaN	470		3.80	4.50	150	300	

Note: -CC: common Cathode, -CA: common Anode

■ Absolute maximum ratings (Ta=25°C)

Parameter	UE	PG	UB	Unit
Forward Current I _F	30	30	30	mA
Power Dissipation P _d	65	110	120	mW
Reverse Voltage V _R	5	5	5	V
Peak Forward Current I _{PF} (Duty 1/10 @1KHZ)	150	150	100	mA
Operation Temperature T _{OPR}	-40 to +80			°C
Storage Temperature T _{STG}	-40 to +85			°C
Lead Soldering Temperature T _{SOL}	Max.260±5°C for 3 sec Max. (1.6mm from the base of the epoxy bulb)			°C

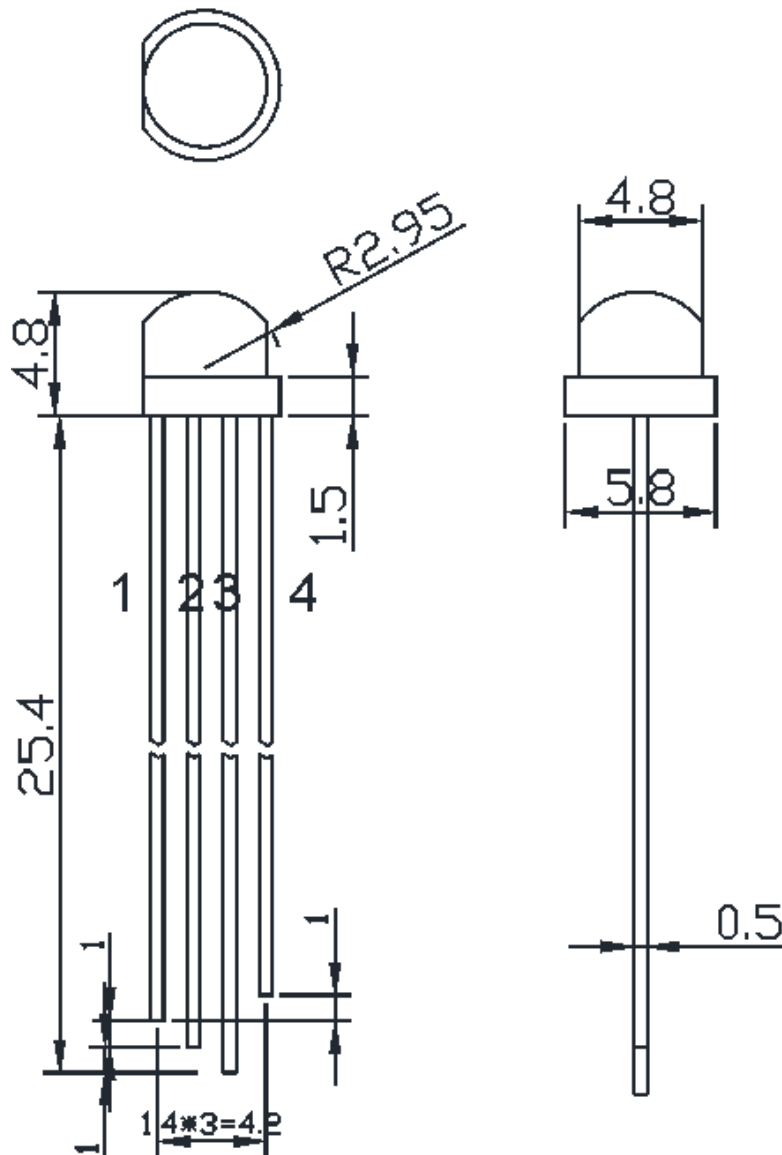
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■ Package configuration & Internal circuit diagram

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3 common
Anode/Cathode

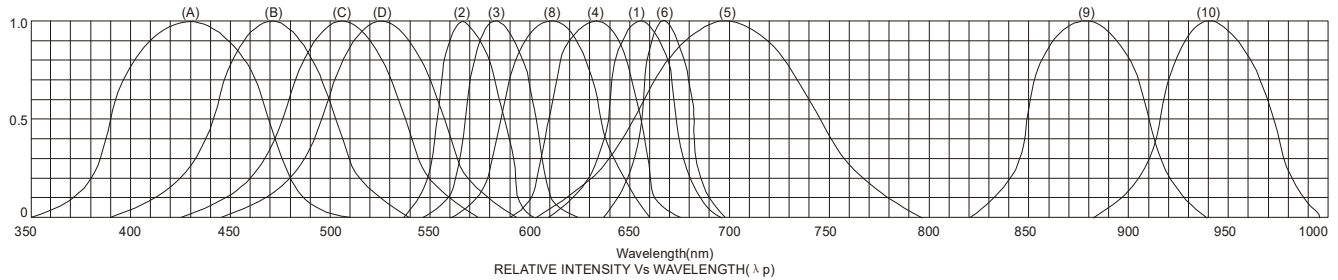
Notes:

1. All dimensions are in millimeters (inches)
2. Tolerance is $\pm 0.25(0.01)$ unless otherwise noted.
3. Specifications are subject to change without notice.

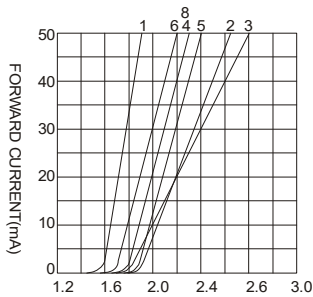
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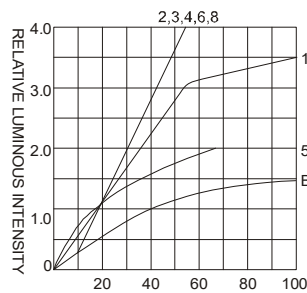
■ Typical electrical-optical characteristics curves:



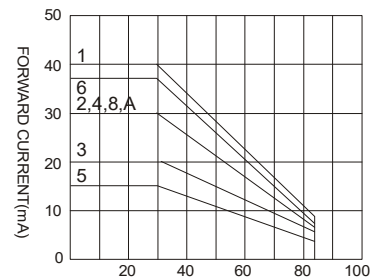
- | | |
|---|--------------------------------------|
| (1) - GaAsP/GaAs 655nm/Red | (9) - GaAlAs 880nm |
| (2) - GaP 570nm/Yellow Green | (10) - GaAs/GaAs & GaAlAs/GaAs 940nm |
| (3) - GaAsP/GaP 585nm/Yellow | (A) - GaN/SiC 430nm/Blue |
| (4) - GaAsP/GaP 635nm/Orange & Hi-Eff Red | (B) - InGaN/SiC 470nm/Blue |
| (5) - GaP 700nm/Bright Red | (C) - InGaN/SiC 505nm/Ultra Green |
| (6) - GaAlAs/GaAs 660nm/Super Red | (D) - InGaAl/SiC 525nm/Ultra Green |
| (8) - GaAsP/GaP 610nm/Super Red | |



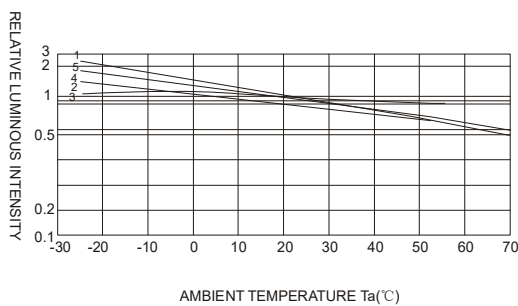
FORWARD VOLTAGE (Vf)
FORWARD CURRENT VS.
FORWARD VOLTAGE



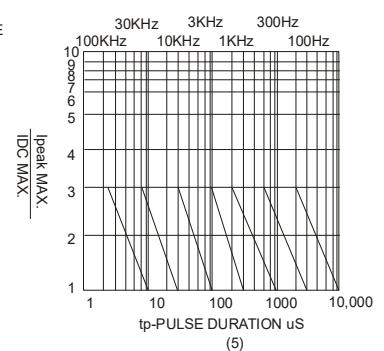
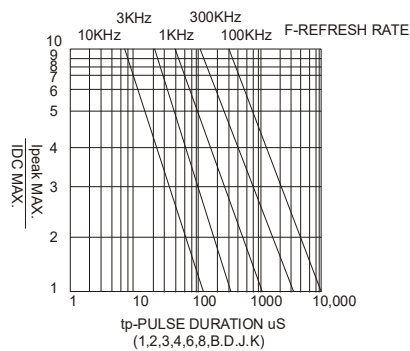
FORWARD CURRENT (mA)
RELATIVE LUMINOUS
INTENSITY VS. FORWARD
CURRENT



AMBIENT TEMPERATURE Ta(°C)
FORWARD CURRENT VS. AMBIENT
TEMPERATURE



AMBIENT TEMPERATURE Ta(°C)



NOTE: 25°C free air temperature unless otherwise specified

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■ Packing and weighting

