

Round Type, Bi-color LED lamp

BL-L109

Features:

- 10.0mm Round Type BI-COLOR LED Lamps, with 3 leads
- Ultra brightness.
- Choice of various viewing angles.
- Diffused, Transparent and Water clear lens
- 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 201/2(deg)
	Emitted Color	Material	λ_p (nm)		Typ	Max	Min.	Typ	
					BL-L109EGW	Orange	GaAsP/GaP	635	
	Green	GaP/GaP	570	2.20	2.50	3	10		
BL-L109YGW	Yellow	GaAsP/GaP	585	Water Diff.	2.10	2.50	3	10	
	Green	GaP/GaP	570		2.20	2.50	3	10	
BL-L109UEUGW	Ultra Yellow	AlGaInP	630		2.10	2.50	70	90	
	Ultra Green	AlGaInP	574		2.20	2.50	50	70	

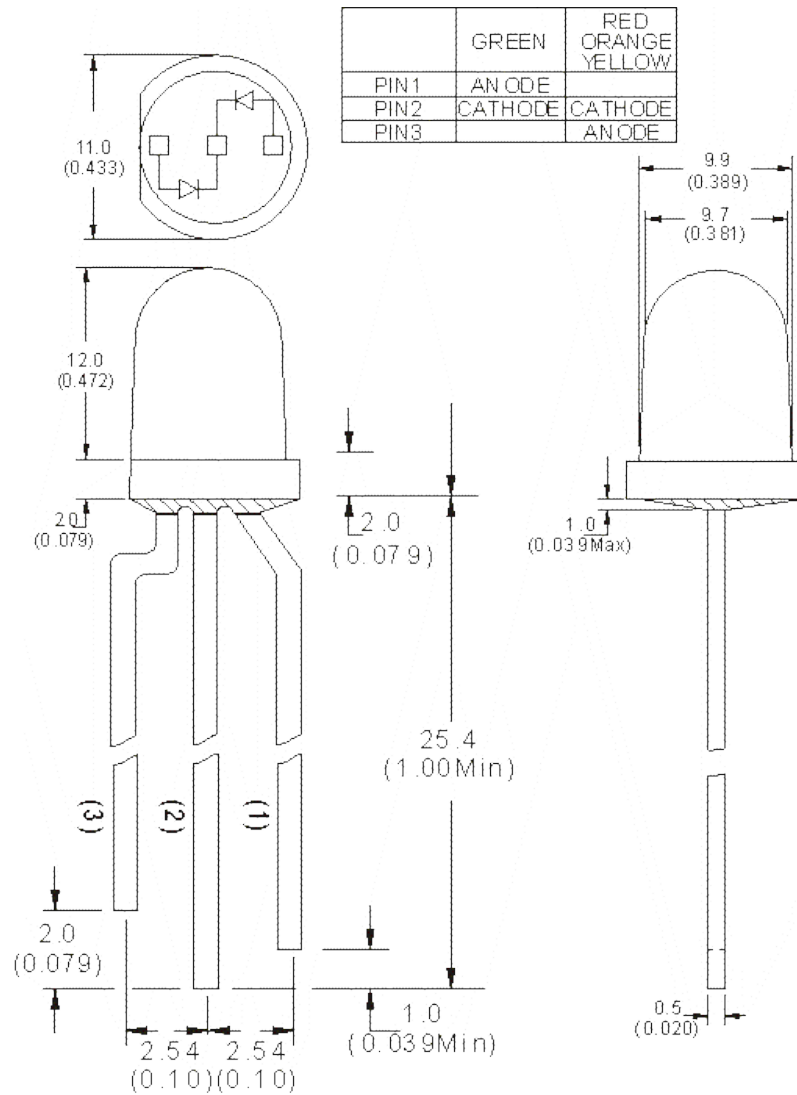
Absolute maximum ratings (Ta=25°C)

Parameter	E	UE	Y	G	UG	Unit
Forward Current I_F	25	30	25	30	30	mA
Power Dissipation P_d	60	65	60	65	75	mW
Reverse Voltage V_R	5	5	5	5	5	V
Peak Forward Current I_{PF} (Duty 1/10 @1KHZ)	150	150	150	150	150	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

Round Type, Bi-color LED lamp

BL-L109

Package configuration & Internal circuit diagram



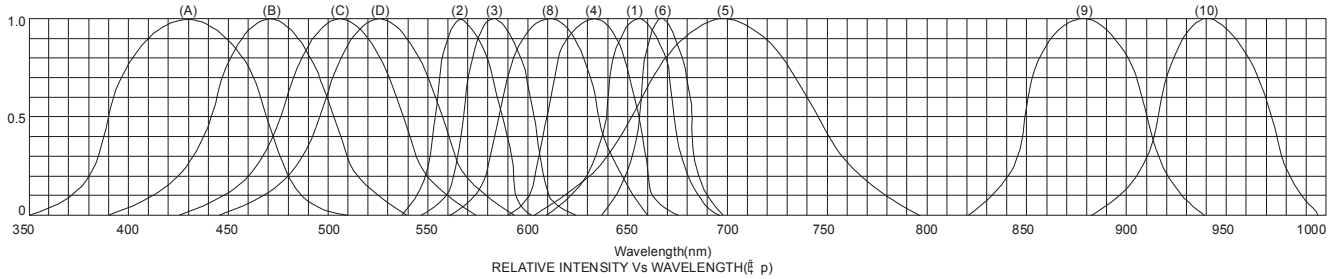
Notes:

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.

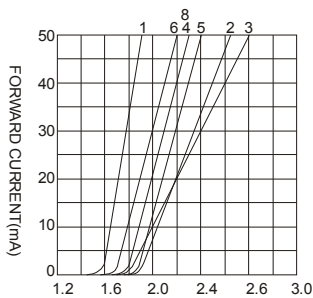
Round Type, Bi-color LED lamp

BL-L109

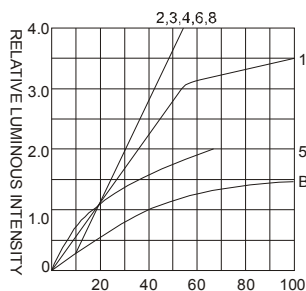
Typical electrical-optical characteristics curves:



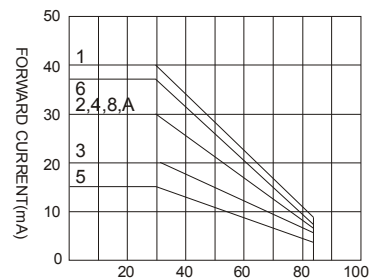
- | | |
|---|--------------------------------------|
| (1) - GaAsP/GaAs 655nm/Red | (9) - GaAlAs 880nm |
| (2) - GaP 570nm/Yellow Green | (10) - GaAs/GaAs & GaAlAs/GaAs 940nm |
| (3) - GaAsP/GaP 585nm/Yellow | (A) - GaN/SiC 430nm/Blue |
| (4) - GaAsP/GaP 635nm/Orange & Hi-Eff Red | (B) - InGaN/SiC 470nm/Blue |
| (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 | |



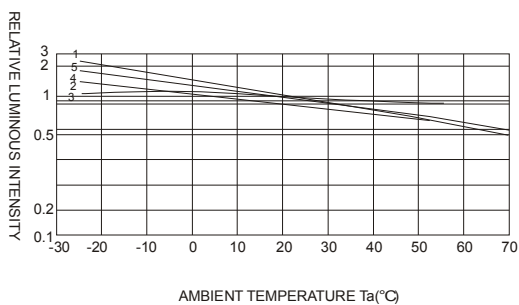
FORWARD VOLTAGE (Vf)
FORWARD CURRENT VS.
FORWARD VOLTAGE



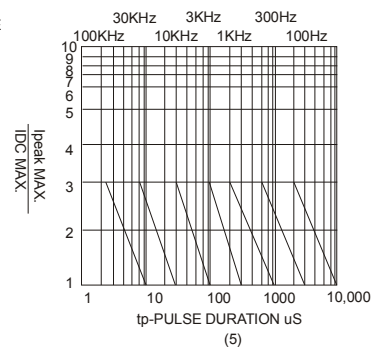
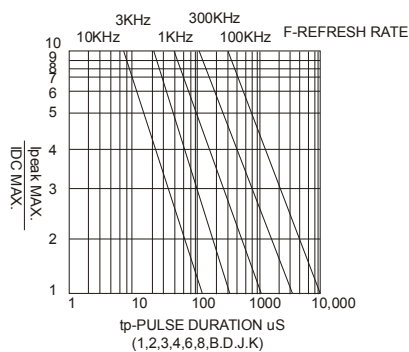
FORWARD CURRENT (mA)
RELATIVE LUMINOUS
INTENSITY VS. FORWARD
CURRENT



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



AMBIENT TEMPERATURE Ta(°C)



NOTE:25°C free air temperature unless otherwise specified