

INFRARED EMITTING DIODES

BL-L314XX-IR

Features:

- ∅ 3.0mm Round Type Infrared LED
- ∅ High Reliability
- ∅ Peak Wavelength at 940, 880, 850nm
- ∅ Water Clear, yellow Transparent, Blue Transparent available
- ∅ IC compatible /Low current capability.



Application

- ∅ Free air transmission system
- ∅ Infrared remote control units with high power requirement
- ∅ Smoke detector
- ∅ Infrared Camera
- ∅ Infrared applied system

Electrical-optical characteristics: (Ta=25°C) (Test Condition: IF=50mA)

Part Number	Chip		Lens Type	λp (nm)	θ	Ir (Vr=5V, uA)	Forward Voltage(VF) Unit:V		Radiant Power (mw/sr) Typ	Viewing Angle 2θ/2(deg)
	Material	λp (nm)					Typ	Max		
BL-L314IRAC	GaAs	940	Water Clear	940	50	10	1.40	1.60	25	40
BL-L314IRAB	GaAs	940	Blue Trans.	940	50	10	1.40	1.60	25	
BL-L314IRBC	GaAlAs	880	Water Clear	880	50	10	1.70	2.00	25	
BL-L314IRBB	GaAlAs	880	Blue Trans.	880	50	10	1.70	2.00	25	
BL-L314IRCC	GaAlAs	850	Water Clear	850	50	10	1.70	2.00	45	
BL-L314IRCB	GaAlAs	850	Blue Trans.	850	50	10	1.70	2.00	45	
BL-L314IRCY	GaAlAs	850	Yellow Trans.	850	50	10	1.70	2.00	45	

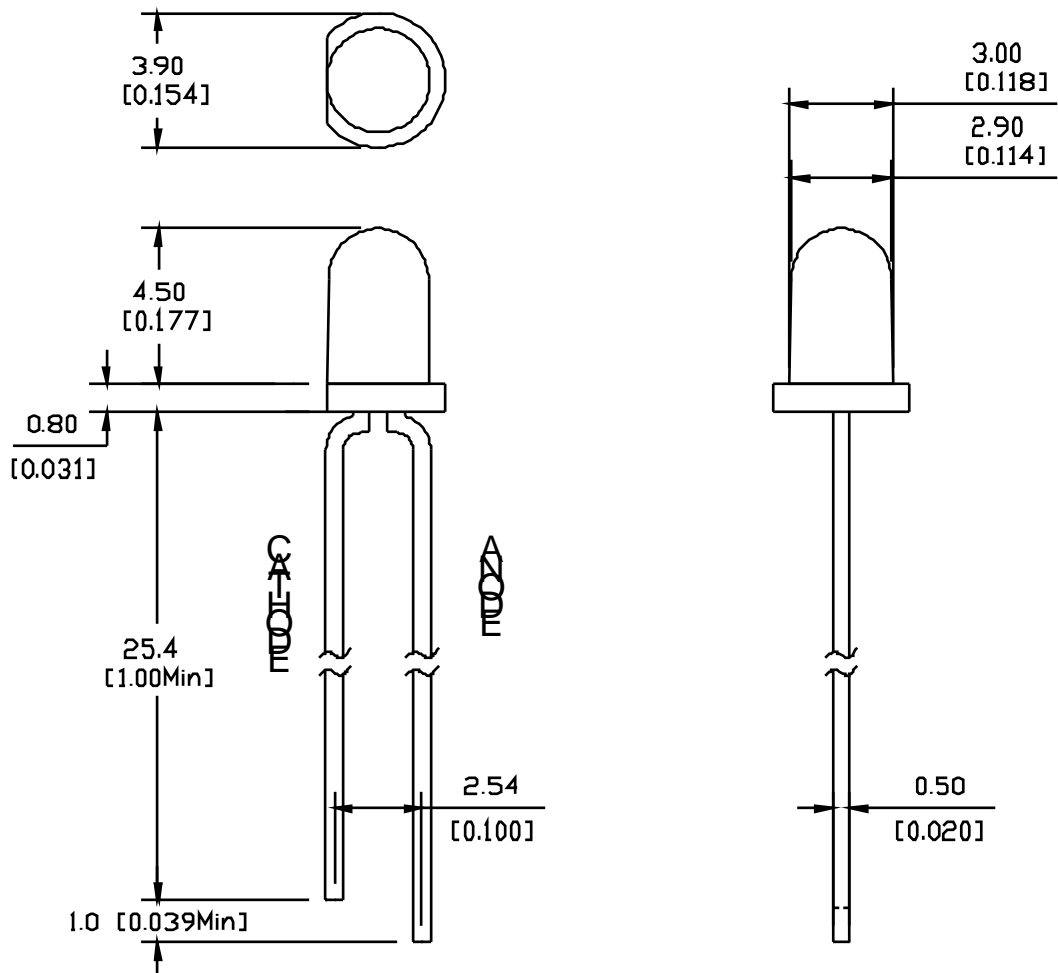
Absolute maximum ratings (Ta=25°C)

Parameter	Rating	Unit
Forward Current IF	50	mA
Power Dissipation Pd	150	mW
Reverse Voltage VR	5	V
Peak Forward Current I _{PF} (Duty 1/10 @1KHZ)	250	mA
Operation Temperature T _{OPR}	-40 to +80	°C
Storage Temperature T _{STG}	-40 to +85	°C
Lead Soldering Temperature TSOL	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



Notes:

1. All dimensions are in millimeters (inches)
2. Tolerance is ± 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
- (2) - GaP 570nm/Yellow Green
- (3) - GaAsP/GaP 585nm/Yellow
- (4) - GaAsP/GaP 635nm/Orange & Hi-Eff Red
- (5) - GaP 700nm/Bright Red
- (6) - GaAlAs/GaAs 660nm/Super Red
- (8) - GaAsP/GaP 610nm/Super Red
- (9) - GaAlAs 880nm
- (10) - GaAs/GaAs & GaAlAs/GaAs 940nm
- (A) - GaN/SiC 430nm/Blue
- (B) - InGaN/SiC 470nm/Blue
- (C) - InGaN/SiC 505nm/Ultra Green
- (D) - InGaAlSiC 525nm/Ultra Green



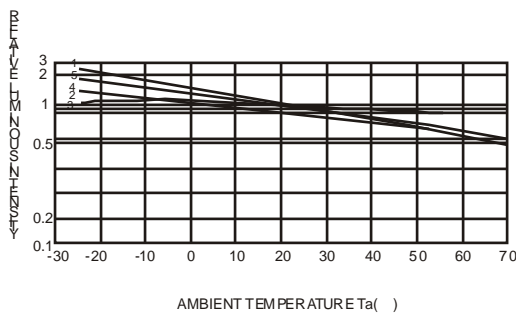
FORWARD VOLTAGE (Vf)
FORWARD CURRENT VS.
FORWARD VOLTAGE



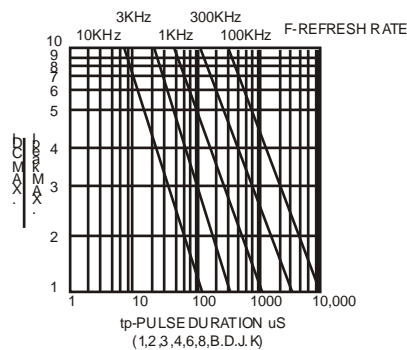
FORWARD CURRENT (mA)
RELATIVE LUMINOUS
INTENSITY VS. FORWARD
CURRENT



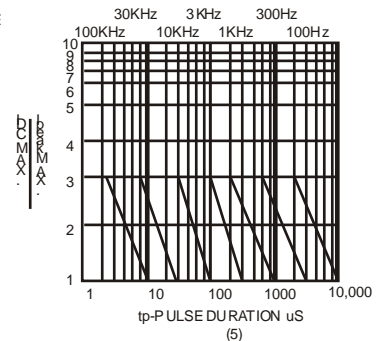
AMBIENT TEMPERATURE Ta ()
FORWARD CURRENT VS. AMBIENT
TEMPERATURE



AMBIENT TEMPERATURE Ta ()



tp-PULSE DURATION μ S
(1,2,3,4,6,8,B,D,J,K)



tp-PULSE DURATION μ S
(5)

NOTE: 25 free air temperature unless otherwise specified

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Packing and weighting

