

INFRARED EMITTING DIODES

BL-L513XX-IR

Features:

- ∅ 5.0mm 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	λc (nm)	Ir (Vr=5V, uA)	Forward Voltage(VF) Unit:V		Radiant Power (mw/sr)	Viewing Angle 2θ/2(deg)
	Material	λp* (nm)				Typ	Max	Typ	
BL-L513IRAC	GaAs	940	Water Clear	50	10	1.40	1.60	30	30
BL-L513IRAB	GaAs	940	Blue Trans.	50	10	1.40	1.60	30	
BL-L513IRBC	GaAlAs	880	Water Clear	50	10	1.70	2.00	30	
BL-L513IRBB	GaAlAs	880	Blue Trans.	50	10	1.70	2.00	30	
BL-L513IRCC	GaAlAs	850	Water Clear	50	10	1.70	2.00	50	
BL-L513IRCB	GaAlAs	850	Blue Trans.	50	10	1.70	2.00	50	
BL-L513IRCY	GaAlAs	850	Yellow Trans.	50	10	1.70	2.00	50	

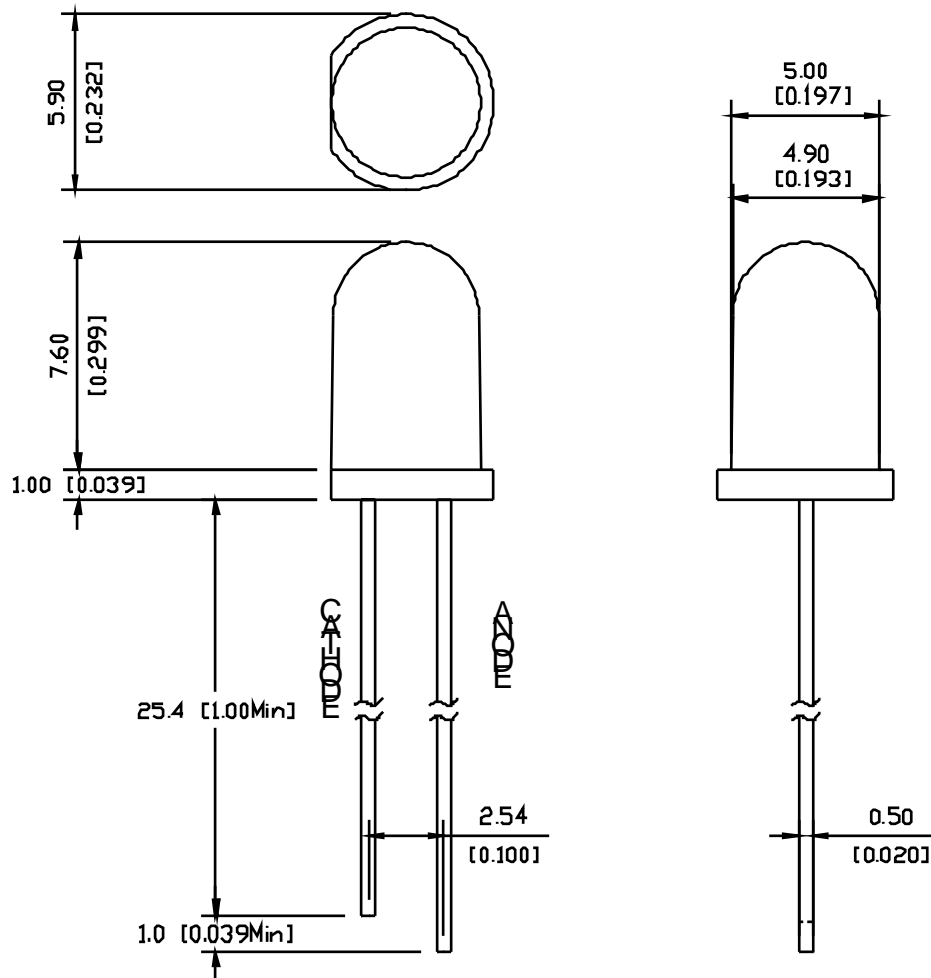
Absolute maximum ratings (Ta=25°C)

Parameter	Rating	Unit
Forward Current I _F	50	mA
Power Dissipation P _d	150	mW
Reverse Voltage V _R	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

INFRARED EMITTING DIODES

BL-L513XX-IR

Package configuration & Internal circuit diagram



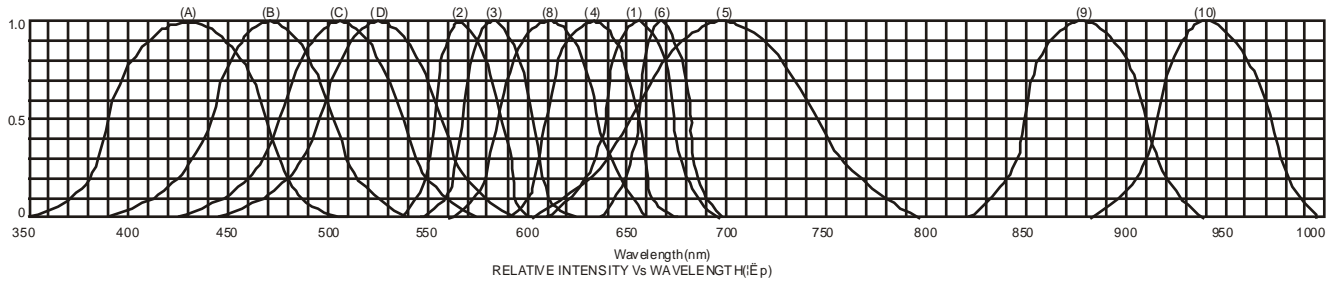
Notes:

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.

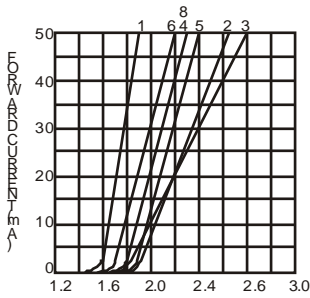
INFRARED EMITTING DIODES

BL-L513XX-IR

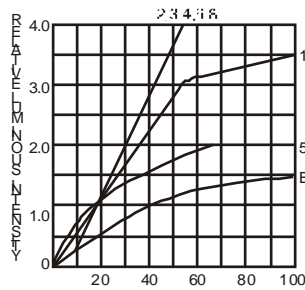
Typical electrical-optical characteristics curves:



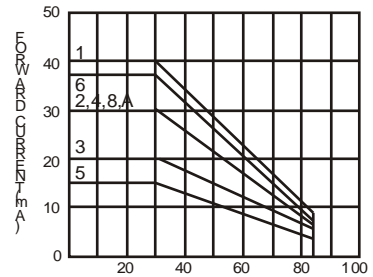
- (1) - GaAsP/GaAs 655nm/Red
- (2) - GaP 570nm/Yellow Green
- (3) - GaAsP/GaP 585nm/Yellow
- (4) - GaAsP/GaP 635nm/Orange & Hi-Eff Red
- (5) - GaP 700nm/Bright Red
- (6) - GaAlAs/GaAs 660nm/Super Red
- (8) - GaAsP/GaP 610nm/Super Red
- (9) - GaAlAs 880nm
- (10) - GaAs/GaAs & GaAlAs/GaAs 940nm
- (A) - 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



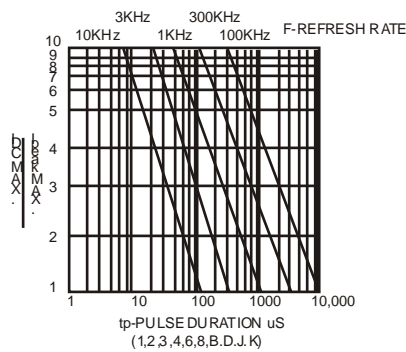
FORWARD CURRENT (mA)
RELATIVE LUMINOUS
INTENSITY VS. FORWARD
CURRENT



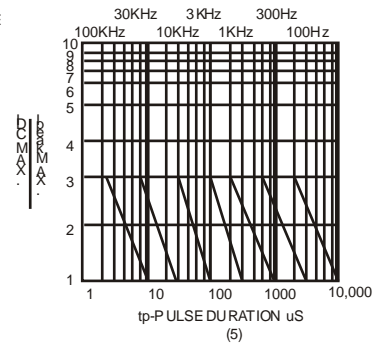
AMBIENT TEMPERATURE Ta (°C)
FORWARD CURRENT VS. AMBIENT
TEMPERATURE



AMBIENT TEMPERATURE Ta (°C)



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

INFRARED EMITTING DIODES

BL-L513XX-IR

Packing and weighting

