

INFRARED EMITTING DIODES
BL-L813XX-IR
■ Features:

- 8.0mm 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	$\Delta\lambda$	Ir (Vr=5V, uA)	Forward Voltage(VF) Unit:V		Radiant Power (mw/sr)	Viewing Angle 201/2(deg)
	Material	λ_P (nm)				Typ	Max		
BL-L813IRAC	GaAs	940	Water Clear	50	10	1.40	1.60	20	30
BL-L813IRAB	GaAs	940	Blue Trans.	50	10	1.40	1.60	20	
BL-L813IRBC	GaAlAs	880	Water Clear	50	10	1.70	2.00	20	
BL-L813IRBB	GaAlAs	880	Blue Trans.	50	10	1.70	2.00	20	
BL-L813IRCC	GaAlAs	850	Water Clear	50	10	1.70	2.00	30	
BL-L813IRCB	GaAlAs	850	Blue Trans.	50	10	1.70	2.00	30	
BL-L813IRCY	GaAlAs	850	Yellow Trans.	50	10	1.70	2.00	30	

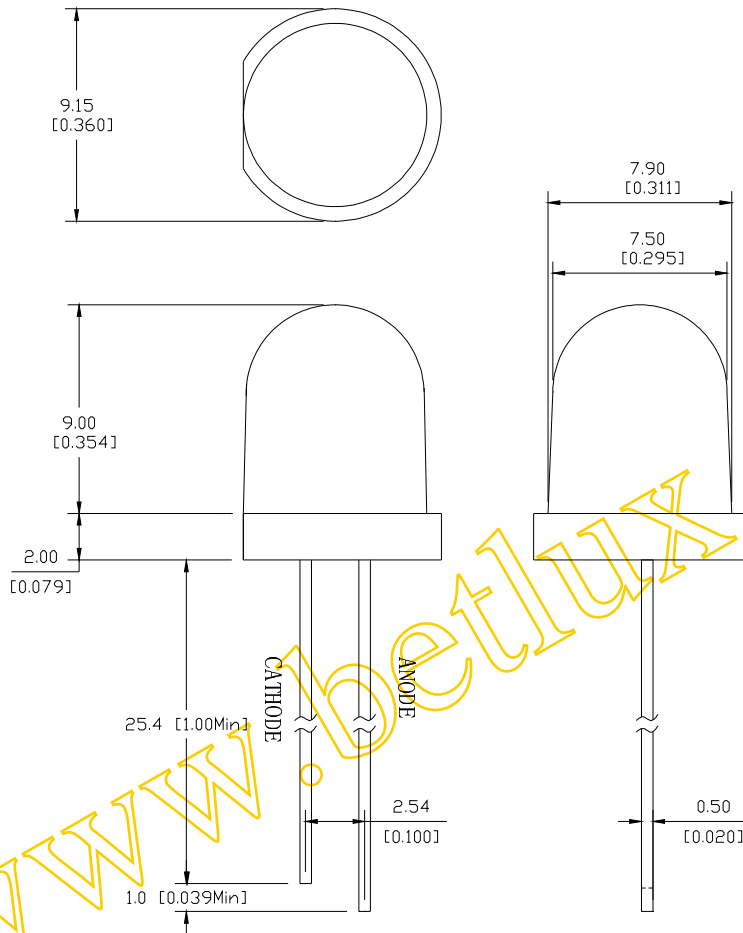
■ Absolute maximum ratings (Ta=25°C)

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

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■ **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.

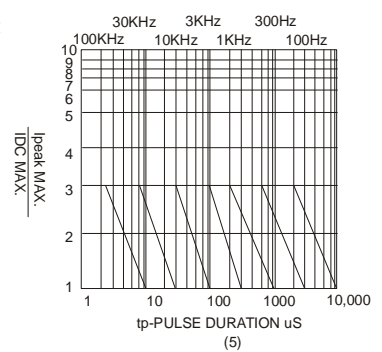
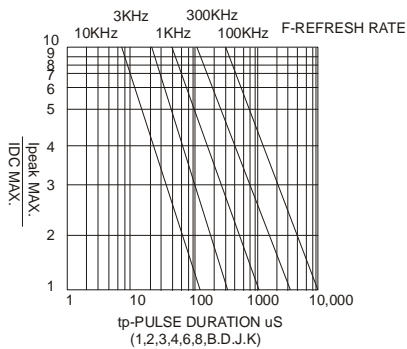
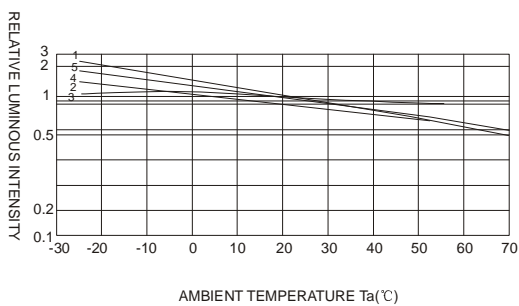
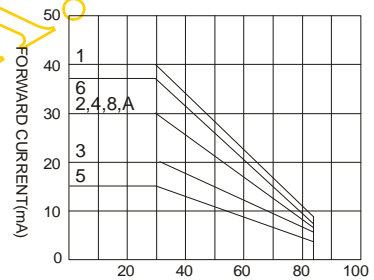
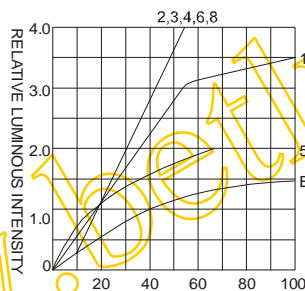
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Typical electrical-optical characteristics curves:



- | | |
|---|--------------------------------------|
| (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) - InGaN/SiC 525nm/Ultra Green |
| (8) - GaAsP/GaP 610nm/Super Red | |



NOTE:25°C free air temperature unless otherwise specified