

Round Type, Blinking LED lamp
BL-L513XX-B
Features:

- 5mm Round Blinking (flash) LED Lamps
- Ultra brightness.
- Choice of various viewing angles.
- Diffused, Transparent and Water clear lens
- IC compatible /Low current capability.
- RoHs Compliance


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

Part Number	Chip			Lens Type	Pulse Rate(Hz) VDD=5V (Hz)			Luminous Intensity (IV) Unit:mcd		Viewing Angle 2θ/2 (deg)
	Emitted Color	Material	λp (nm)		Min	Typ	Max	Min.	Typ.	
BL-L513SRC-B	Hi Red	AlGaAs,SH	660	Water Clear	2.0	2.4	2.8	50	250	20
BL-L513LRC-B	Super Red	AlGaAs,DH	660		2.0	2.4	2.8	250	600	
BL-L513URC-B	Ultra Red	AlGaAs,DDH	660		2.0	2.4	2.8	600	1000	
BL-L513UEC-B	Ultra Orange	AlGaInP	630		2.0	2.4	2.8	800	2000	
BL-L513UYC-B	Ultra Yellow	AlGaInP	590		2.0	2.4	2.8	1000	2200	
BL-L513UGC-B	Ultra Green	AlGaInP	574		2.0	2.4	2.8	300	700	
BL-L513PGC-B	Ultra Pure Green	InGaN	525		2.0	2.4	2.8	2000	5000	
BL-L513BGC-B	Ultra Bluish Green	InGaN	505		2.0	2.4	2.8	1800	4000	
BL-L513UBC-B	Ultra Blue	InGaN	470		2.0	2.4	2.8	2000	5000	
BL-L513VC-B	UV	InGaN	405		2.0	2.4	2.8	80	150	
BL-L513UWC-B	Ultra White	InGaN	/		2.0	2.4	2.8	3000	10000	

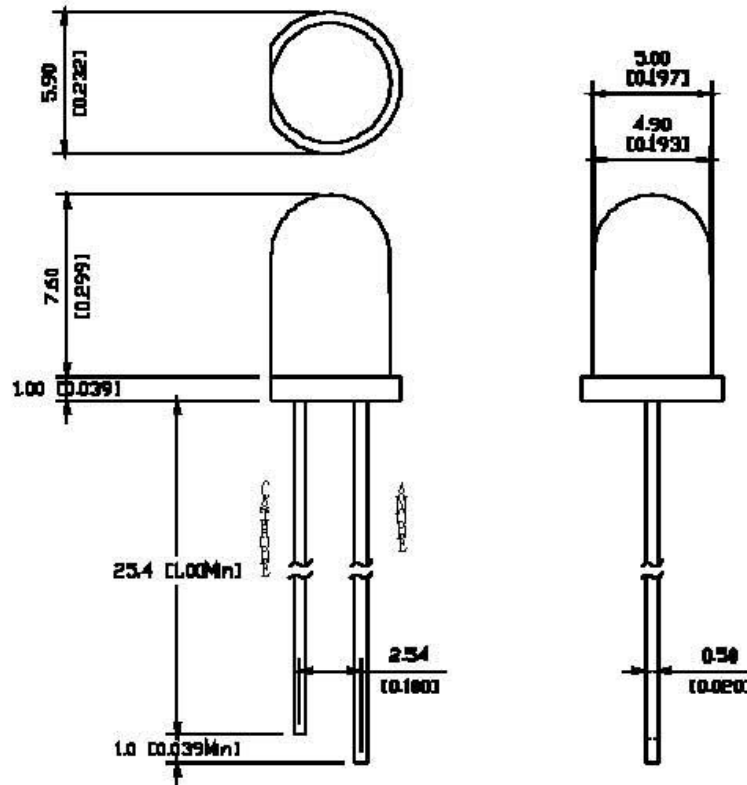
Absolute maximum ratings (Ta=25°C)

Parameter	SR	LR	UR	UE	UY	UG	PG	BG	B	UB	UV	W	Unit
Forward Current I _F	25	25	25	30	30	30	30	30	30	30	30	30	mA
Power Dissipation P _d	60	60	60	65	65	75	110	110	120	120	120	120	mW
Reverse Voltage V _R	5	5	5	5	5	5	5	5	5	5	5	5	V
Peak Forward Current I _{PF} (Duty 1/10 @1KHZ)	150	150	150	150	150	150	150	100	100	100	100	100	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**



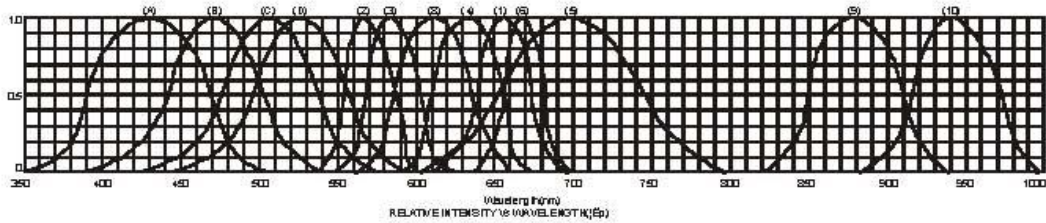
Notes:

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.

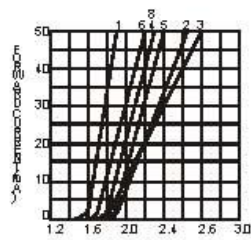
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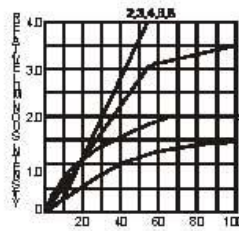
□ **Typical electrical-optical characteristics curves:**



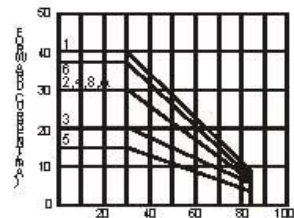
- | | |
|---|--------------------------------------|
| (1) - GaAsP/GaAs 655nm/Red | (9) - GaAlAs 880nm |
| (2) - GaP 570nm/Yellow Green | (10) - GaAs/GaAs & GaAlAs/GaAs 940nm |
| (3) - GaAsP/GaP 585nm/Yellow | (A) - GaN/SiC 430nm/Blue |
| (4) - GaAsP/GaP 635nm/Orange & Hi-Eff Red | (B) - InGaN/SiC 470nm/Blue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



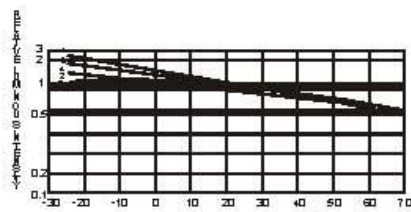
FORWARD VOLTAGE (V_f)
FORWARD CURRENT VS.
FORWARD VOLTAGE



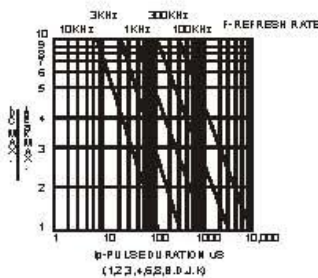
FORWARD CURRENT (I_f)
RELATIVE LUMINOUS
INTENSITY VS. FORWARD
CURRENT



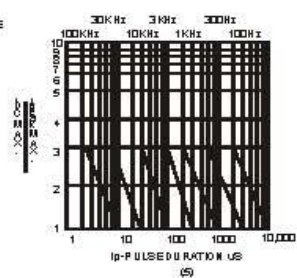
AMBIENT TEMPERATURE (T_a)
FORWARD CURRENT VS. AMBIENT
TEMPERATURE



AMBIENT TEMPERATURE (T_a)



(1, 2, 3, 4, 5, 6, 8, 9)



(5)

NO TESTS AT 25°C ambient temperature unless otherwise specified