

Round Type LED lamp

BL-L512

Features:

- Ø 5mm Round Type LED lamp
- Ø Ultra brightness.
- Ø Choice of various viewing angles.
- Ø Diffused, Transparent and Water clear lens are available.
- Ø IC compatible /Low current capability.
- Ø RoHs Compliance



Electrical-optical characteristics: (Ta=25°C) (Test Condition: IF=20mA)

Part Number	Chip			Lens Type	Forward Voltage(VF) Unit:V		Luminous Intensity (lv) Unit:mcd		Viewing Angle 2θ/2 (deg)
	Emitted Color	Material	λ _p (nm)		Typ	Max	Min.	Typ.	
BL-L512SRC	Hi Red	AlGaAs,SH	660	Water Clear	1.85	2.20	50	250	20
BL-L512LRC	Super Red	AlGaAs,DH	660		1.85	2.20	250	600	
BL-L512URC	Ultra Red	AlGaAs,DDH	660		1.95	2.20	600	1000	
BL-L512UEC	Ultra Orange	AlGaInP	630		2.10	2.50	800	2000	
BL-L512UYC	Ultra Yellow	AlGaInP	590		2.10	2.50	1000	2200	
BL-L512UGC	Ultra Green	AlGaInP	574		2.20	2.50	300	700	
BL-L512PGC	Ultra Pure Green	InGaN	525		3.80	4.50	2000	5000	
BL-L512BGC	Ultra Bluish Green	InGaN	505		3.80	4.50	1800	4000	
BL-L512BC	Blue	InGaN	430		3.80	4.50	800	2000	
BL-L512UBC	Ultra Blue	InGaN	470		2.70	4.20	2000	5000	
BL-L512VC	UV	InGaN	405		3.80	4.50	80	150	
BL-L512UWC	Ultra White	InGaN	/		2.70	4.20	3000	10000	
BL-L512SRD	Hi Red	AlGaAs,SH	660		Diffused	1.85	2.20	20	
BL-L512LRD	Super Red	AlGaAs,DH	660	1.85		2.20	50	120	
BL-L512URD	Ultra Red	AlGaAs,DDH	660	1.95		2.20	100	220	
BL-L512UED	Ultra Orange	AlGaInP	630	2.10		2.50	120	300	
BL-L512UYD	Ultra Yellow	AlGaInP	590	2.10		2.50	120	320	
BL-L512UGD	Ultra Green	AlGaInP	574	2.20		2.50	45	100	
BL-L512PGD	Ultra Pure Green	InGaN	525	3.80		4.50	400	900	
BL-L512BGD	Ultra Bluish Green	InGaN	505	3.80		4.50	300	800	
BL-L512UBD	Ultra Blue	InGaN	470	2.70		4.20	400	900	
BL-L512UWW	Ultra White	InGaN	/	2.70		4.20	1000	2000	

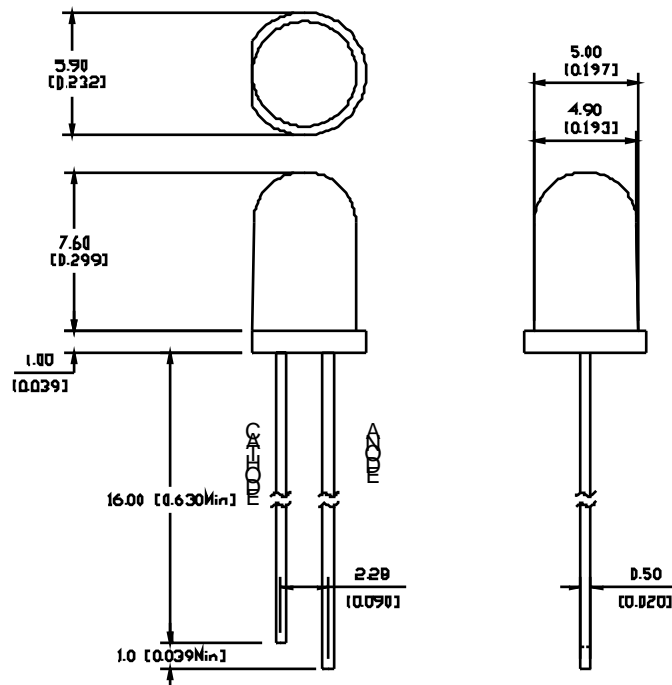
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Absolute maximum ratings (Ta=25°C)

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

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:



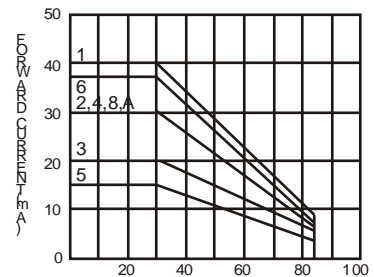
- (1) - GaAsP/GaAs 655nm/Red
- (2) - GaP 570nm/Yellow Green
- (3) - GaAsP/GaP 585nm/Yellow
- (4) - GaAsP/GaP 635nm/Orange & Hi-Eff Red
- (5) - GaP 700nm/Bright Red
- (6) - GaAlAs/GaAs 660nm/Super Red
- (8) - GaAsP/GaP 610nm/Super Red
- (9) - GaAlAs 880nm
- (10) - GaAs/GaAs & GaAlAs/GaAs 940nm
- (A) -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



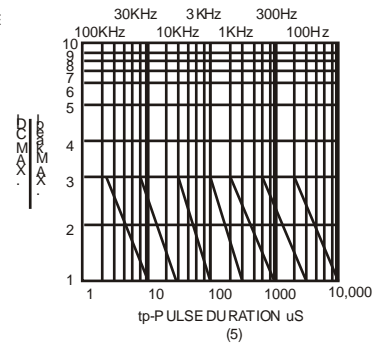
AMBIENT TEMPERATURE Ta()
FORWARD CURRENT VS. AMBIENT
TEMPERATURE



AMBIENT TEMPERATURE Ta()



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



(5)

NOTE:25 free air temperature unless otherwise specified

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Packing and weighting

