

**SMD LED LAMP**
**BL-LS1608B0E1**
**Features:**

- 1.6mmx0.8mm SMD, 0.8mm THICKNESS
- Mono-color type
- Compatible with automatic placement equipment
- WIDE VIEWING ANGLE.
- IDEAL FOR BACKLIGHT AND INDICATOR.
- PACKAGE: 4KPCS/REEL
- 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 2θ1/2 (deg)
	Emitted Color	Material	λ <sub>p</sub> (nm)		Typ	Max	Min.	Typ.	
BL-LS1608B0E1HC	Red	GaP	700	Water Clear	2.2	2.7	0.3	1.0	130
BL-LS1608B0E1SRC	Super Red	AlGaAs	660		1.85	2.30	5	13	
BL-LS1608B0E1LRC	Super Red	AlGaAs	660		1.85	2.30	10	28	
BL-LS1608B0E1URC	Ultra Red	AlGaAs	660		1.95	2.50	20	45	
BL-LS1608B0E1EC	Red	GaAsP	640		2.10	2.70	1	6	
BL-LS1608B0E1YC	Yellow	GaAsP	583		2.15	2.70	1	6	
BL-LS1608B0E1GC	Green	GaP	568		2.30	2.70	6	15	
BL-LS1608B0E1VC	Purple	GaN	405		3.2	3.6	2	4	

**■ Absolute maximum ratings (Ta=25°C)**

Parameter	H	SR	LR	UR	E	Y	G	V	Unit
Forward Current I <sub>F</sub>	30	30	30	30	30	30	30	30	mA
Power Dissipation P <sub>d</sub>	65	78	78	78	65	65	65	90	mW
Reverse Voltage V <sub>R</sub>	5	5	5	5	5	5	5	5	V
Peak Forward Current I <sub>PF</sub> (Duty 1/10 @1KHZ)	100	100	100	100	100	100	100	100	mA
Operation Temperature T <sub>OPR</sub>	-30 to +80								°C
Storage Temperature T <sub>STG</sub>	-40 to +85								°C
Lead Soldering Temperature T <sub>SOL</sub>	Max.260±5°C for 3 sec Max. (1.6mm from the base of the epoxy bulb)								°C

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	Emitted Color	Material	λ <sub>p</sub> (nm)		Typ	Max	Min.	Typ.	
					BL-LS1608B0E1UDR	Ultra Red	AlGaAs	655	
BL-LS1608B0E1UHR	Ultra Red	AlGaAs	645	2.10	2.60	30	80		
BL-LS1608B0E1UEC	Ultra Red	AlGaAs	630	2.10	2.50	30	80		
BL-LS1608B0E1UHD	Ultra Red	AlGaAs	618	2.10	2.60	50	110		
BL-LS1608B0E1UYO	Ultra Amber	AlGaInP	610	2.10	2.60	30	80		
BL-LS1608B0E1UYC	Ultra Yellow	AlGaInP	593	2.10	2.60	25	70		
BL-LS1608B0E1UGC	Ultra Green	AlGaInP	575	2.20	2.70	40	80		
BL-LS1608B0E1PGC	Ultra Pure Green	InGaN	525	3.50	4.20	50	100		
BL-LS1608B0E1BGC	Ultra Bluish Green	InGaN	505	3.50	4.20	50	110		
BL-LS1608B0E1DNB	Blue	InGaN	470	3.50	4.20	100	133		
BL-LS1608B0E1UBC	Ultra Blue	InGaN	470	3.50	4.20	100	130		
BL-LS1608B0E1UWC	Ultra White	InGaN	/	3.50	4.20	80	300		

**■ Absolute maximum ratings (Ta=25°C)**

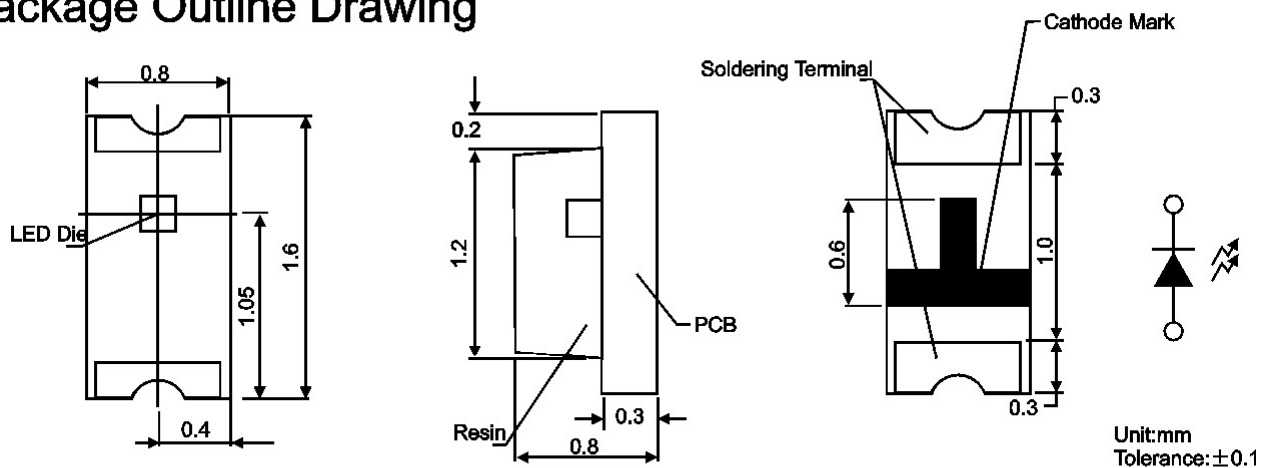
Parameter	UDR	UHR	UE	UHD	UYO	UY	UG	PG	BG	DNB	UB	UW	Unit
Forward Current I <sub>F</sub>	30	30	30	30	30	30	30	30	30	30	30	30	mA
Power Dissipation P <sub>d</sub>	78	78	78	78	78	78	78	78	78	78	78	78	mW
Reverse Voltage V <sub>R</sub>	5	5	5	5	5	5	5	5	5	5	5	5	V
Peak Forward Current I <sub>PF</sub> (Duty 1/10 @1KHZ)	100	100	100	100	100	100	100	100	100	100	100	100	mA
Operation Temperature T <sub>OPR</sub>	-30 to +80												°C
Storage Temperature T <sub>STG</sub>	-40 to +85												°C
Lead Soldering Temperature T <sub>SOL</sub>	Max.260±5°C for 3 sec Max. (1.6mm from the base of the epoxy bulb)												°C

**SMD LED LAMP**

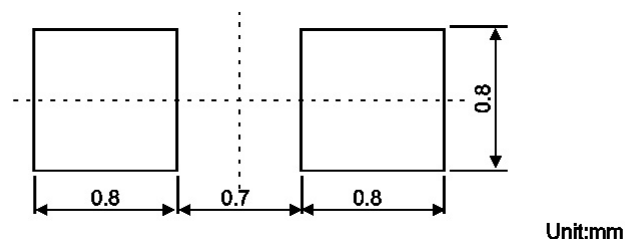
**BL-LS1608B0E1**

■ **Package configuration & Internal circuit diagram**

**BL-LS1608B0E1 Series  
Package Outline Drawing**



**Recommended Soldering Pad Dimensions**



**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.

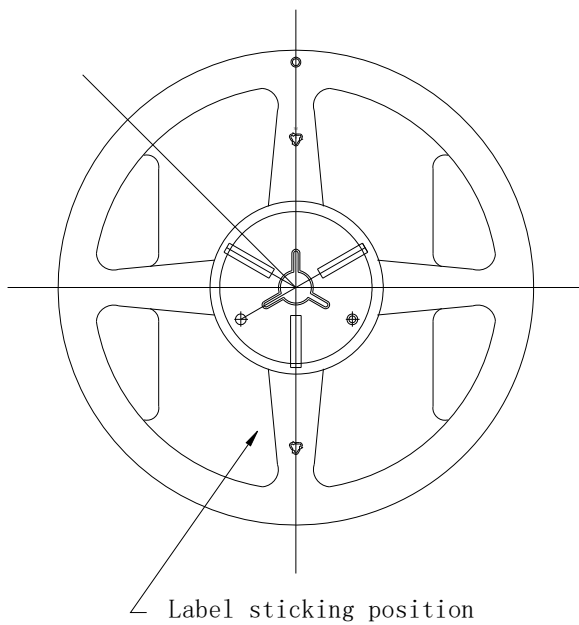
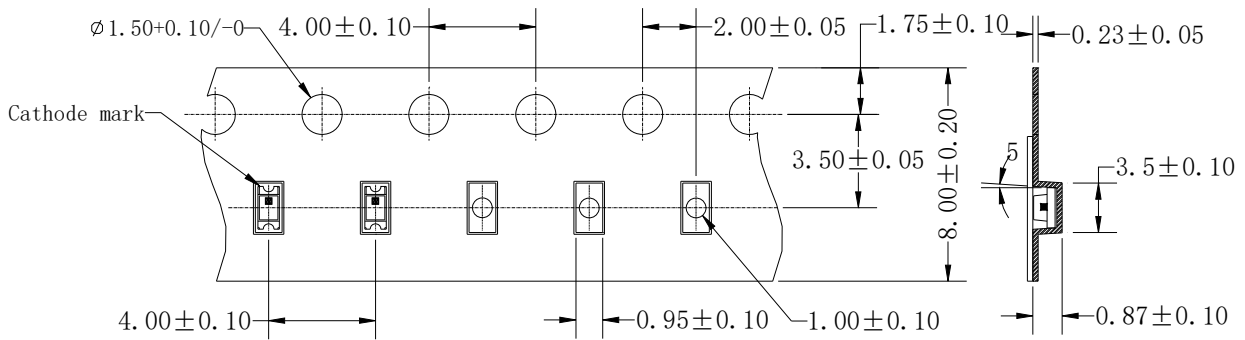
**SMD LED LAMP**

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■ **Tape Specifications**

Unit: mm

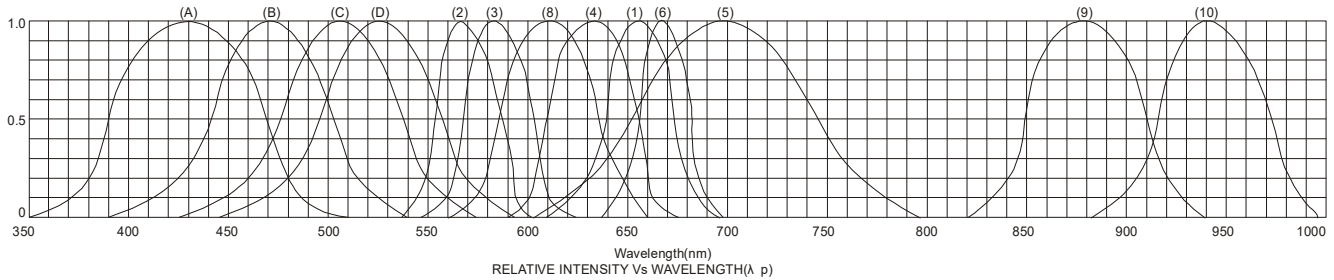
Tolerance:  $\pm 0.1$



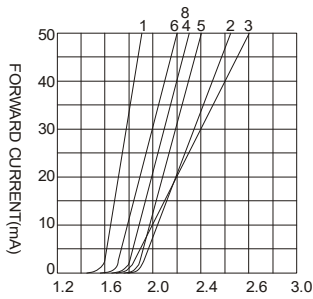
## SMD LED LAMP

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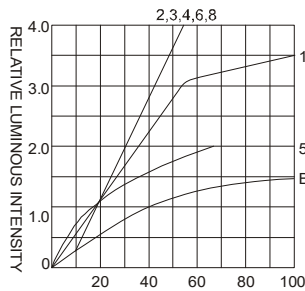
### Typical electrical-optical characteristics curves:



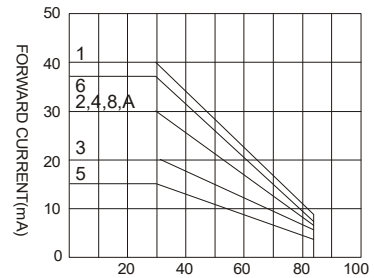
- |   |                                      |
|---|--------------------------------------|
| (1) - GaAsP/GaAs 655nm/Red                | (9) - GaAlAs 880nm                   |
| (2) - GaP 570nm/Yellow Green              | (10) - GaAs/GaAs & GaAlAs/GaAs 940nm |
| (3) - GaAsP/GaP 585nm/Yellow              | (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           |                                      |



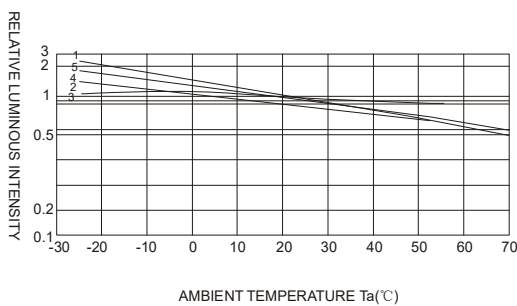
FORWARD VOLTAGE (Vf)  
FORWARD CURRENT VS.  
FORWARD VOLTAGE



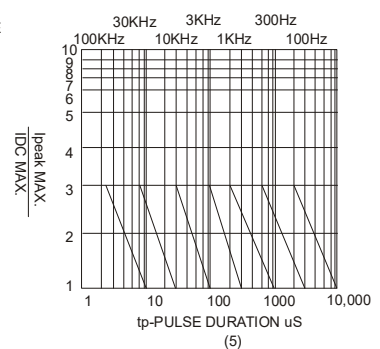
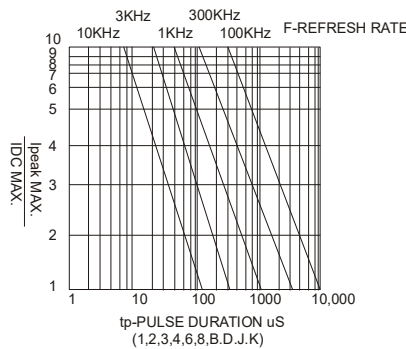
FORWARD CURRENT (mA)  
RELATIVE LUMINOUS  
INTENSITY VS. FORWARD  
CURRENT



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



AMBIENT TEMPERATURE Ta(°C)



NOTE:25°C free air temperature unless otherwise specified

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■ **Packing and weighting**

