

SMD LED LAMP

BL-LS2012B0E1

Features:

- 2.0mmx1.25mm 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 (Iv) Unit:mcd		Viewing Angle 2θ1/2 (deg)
	Emitted Color	Material	λ _p (nm)						
					Typ	Max	Min.	Typ.	
BL-LS2012B0E1HC	Red	GaP	700	Water Clear	2.2	2.7	0.3	0.9	130
BL-LS2012B0E1SRC	Super Red	AlGaAs	660		1.85	2.30	5	13	
BL-LS2012B0E1LRC	Super Red	AlGaAs	660		1.85	2.30	10	28	
BL-LS2012B0E1EC	Red	GaAsP	640		2.10	2.70	1	6	
BL-LS2012B0E1YC	Yellow	GaAsP	583		2.15	2.70	1	6	
BL-LS2012B0E1GC	Green	GaP	568		2.30	2.70	6	15	

■ Absolute maximum ratings (Ta=25°C)

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

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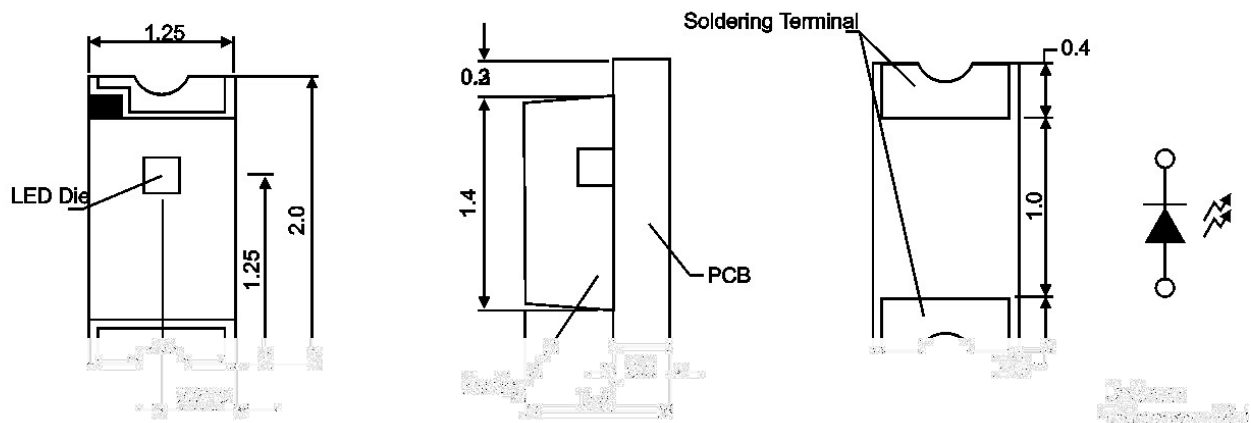
Part Number	Chip			Lens Type	Forward Voltage(VF) Unit:V		Luminous Intensity (Iv) Unit:mcd		Viewing Angle 2θ1/2 (deg)
	Emitted Color	Material	λ _P (nm)						
					Typ	Max	Min.	Typ.	
BL-LS2012B0E1UDR	Ultra Red	AlGaAs	655	Water Clear	2.10	2.50	22	55	130
BL-LS2012B0E1UHR	Ultra Red	AlGaAs	645		2.10	2.60	30	80	
BL-LS2012B0E1UEC	Ultra Red	AlGaAs	630		2.10	2.50	30	70	
BL-LS2012B0E1UHD	Ultra Red	AlGaAs	618		2.10	2.60	50	110	
BL-LS2012B0E1UYO	Ultra Amber	AlGaInP	610		2.10	2.60	30	70	
BL-LS2012B0E1UYC	Ultra Yellow	AlGaInP	593		2.10	2.60	25	75	
BL-LS2012B0E1UGC	Ultra Green	AlGaInP	575		2.20	2.70	10	45	
BL-LS2012B0E1PGC	Ultra Pure Green	InGaN	525		3.50	4.20	50	100	
BL-LS2012B0E1BGC	Ultra Green Bluish	InGaN	505		3.50	4.20	50	110	
BL-LS2012B0E1DNB	Blue	InGaN	470		3.50	4.20	10	38	
BL-LS2012B0E1UBC	Ultra Blue	InGaN	470		3.50	4.20	10	30	
BL-LS2012B0E1UWC	Ultra White	InGaN	/		3.50	4.20	40	200	

■ Absolute maximum ratings (Ta=25°C)

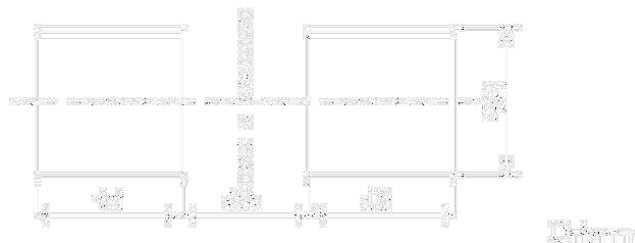
Parameter	UDR	UHR	UE	UHD	UYO	UY	UG	PG	BG	DNB	UB	UW	Unit
Forward Current I _F	30	30	30	30	30	30	30	30	30	30	30	30	mA
Power Dissipation P _d	78	78	78	78	78	78	78	78	78	78	78	78	mW
Reverse Voltage V _R	5	5	5	5	5	5	5	5	5	5	5	5	V
Peak Forward Current I _{PF} (Duty 1/10 @1KHZ)	100	100	100	100	100	100	100	100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

■ Package configuration & Internal circuit diagram

BL-LS2012B0E1 Series Package Outline Drawing



Thermal and Electrical Reliability Test Procedures



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.

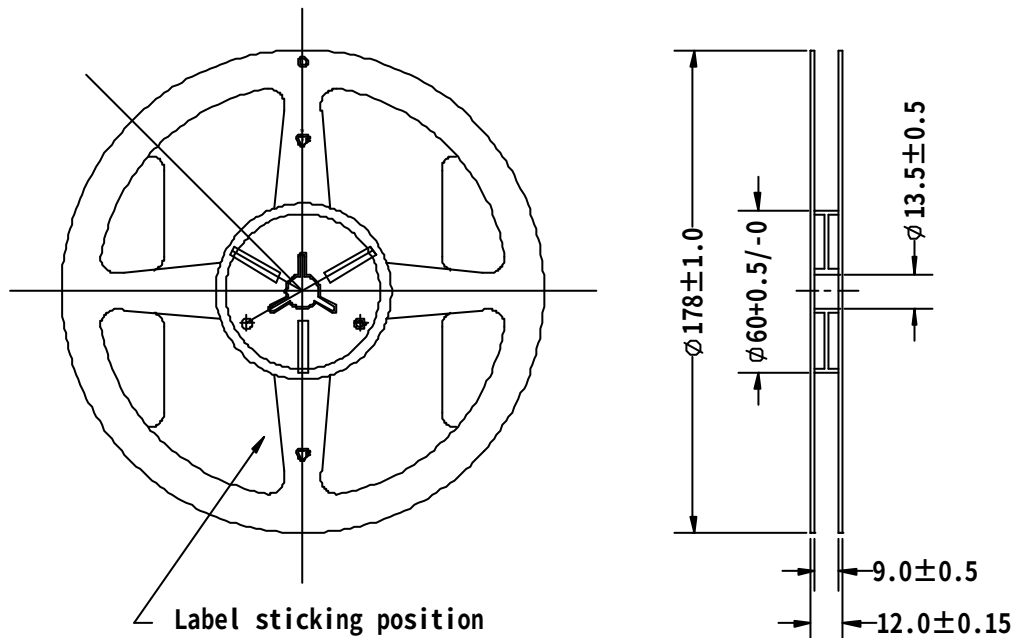
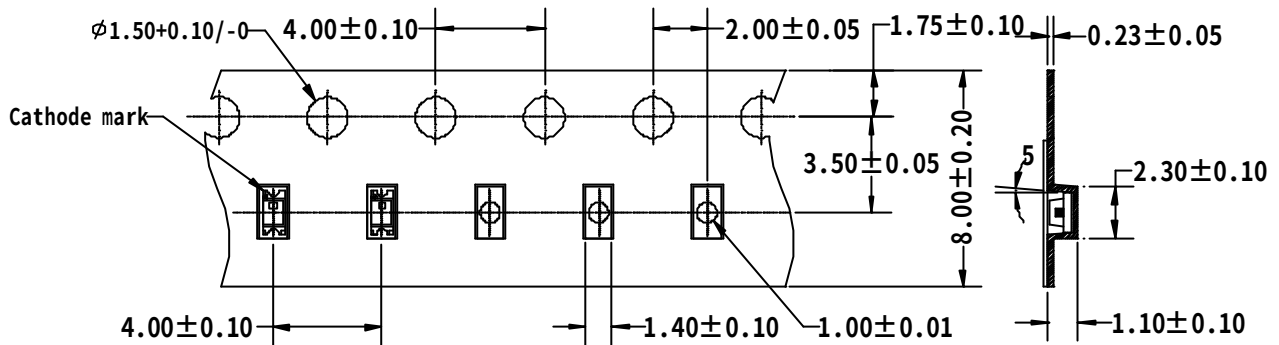
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■ Tape Specifications

Unit : mm

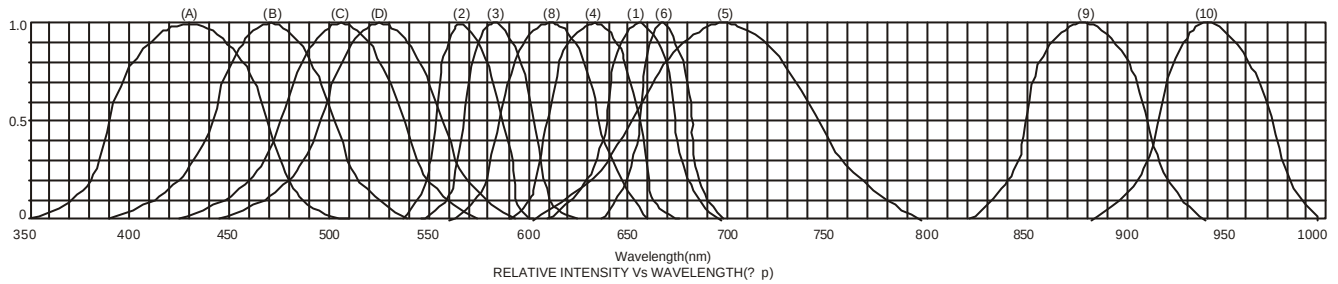
Tolerance : ± 0.1



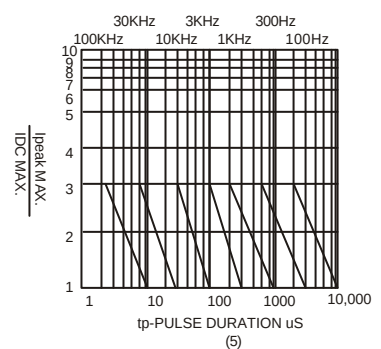
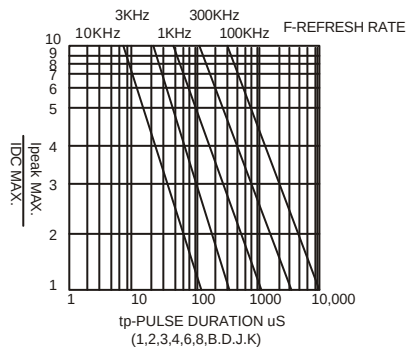
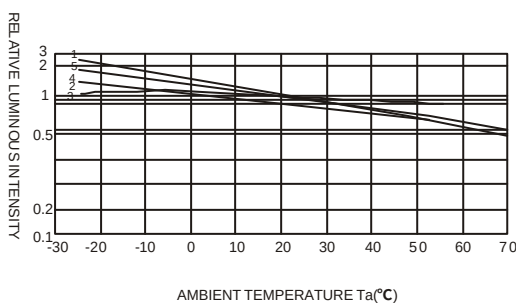
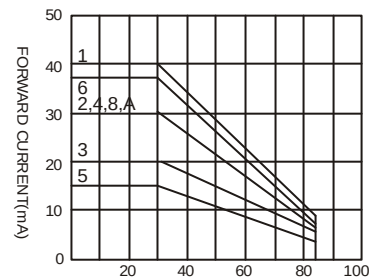
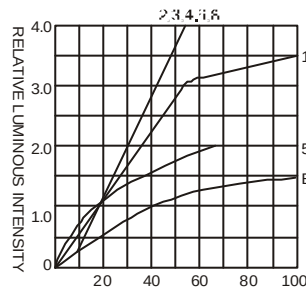
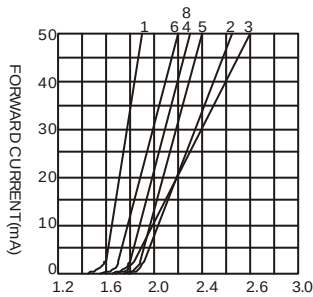
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Typical electrical-optical characteristics curves:



- | | |
|---|--------------------------------------|
| (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 | |



NOTE: 25°C free air temperature unless otherwise specified

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■ Packing and weighting

