

**SMD LED LAMP**
**BL-LS3216A0E1**
**Features:**

- 3.2mmx1.6mm SMD, 1.8mm THICKNESS, Round lens
- Mono-color type
- Compatible with automatic placement equipment
- WIDE VIEWING ANGLE.
- IDEAL FOR BACKLIGHT AND INDICATOR.
- PACKAGE: 3KPCS/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	λp (nm)		Typ	Max	Min.	Typ.	
BL-LS3216A0E1HC	Red	GaP	700	Water Clear	2.2	2.7	5	15	50
BL-LS3216A0E1SRC	Super Red	AlGaAs	660		1.85	2.30	15	25	
BL-LS3216A0E1LRC	Super Red	AlGaAs	660		1.85	2.30	25	35	
BL-LS3216A0E1EC	Red	GaAsP	640		2.10	2.70	5	15	
BL-LS3216A0E1YC	Yellow	GaAsP	583		2.15	2.70	5	15	
BL-LS3216A0E1GC	Green	GaP	568		2.30	2.70	8	20	

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

Parameter	H	SR	LR	UR	E	Y	G	Unit
Forward Current I <sub>F</sub>	30	30	30	30	30	30	30	mA
Power Dissipation P <sub>d</sub>	65	78	78	78	65	65	65	mW
Reverse Voltage V <sub>R</sub>	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	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-LS3216A0E1UDR	Ultra Red	AlGaAs	655	Water Clear	2.10	2.50	100	300	50
BL-LS3216A0E1UHR	Ultra Red	AlGaAs	645		2.10	2.60	150	400	
BL-LS3216A0E1UEC	Ultra Red	AlGaAs	630		2.10	2.50	150	400	
BL-LS3216A0E1UHD	Ultra Red	AlGaAs	618		2.10	2.60	200	600	
BL-LS3216A0E1UYO	Ultra Amber	AlGaInP	610		2.10	2.60	40	180	
BL-LS3216A0E1UYC	Ultra Yellow	AlGaInP	593		2.10	2.60	90	200	
BL-LS3216A0E1UGC	Ultra Green	AlGaInP	575		2.20	2.70	45	120	
BL-LS3216A0E1PGC	Ultra Pure Green	InGaN	525		3.50	4.20	150	500	
BL-LS3216A0E1BGC	Ultra Bluish Green	InGaN	505		3.50	4.20	100	400	
BL-LS3216A0E1DNB	Blue	InGaN	470		3.50	4.20	90	250	
BL-LS3216A0E1UBC	Ultra Blue	InGaN	470		3.50	4.20	80	200	
BL-LS3216A0E1UWC	Ultra White	InGaN	/		3.50	4.20	200	800	

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

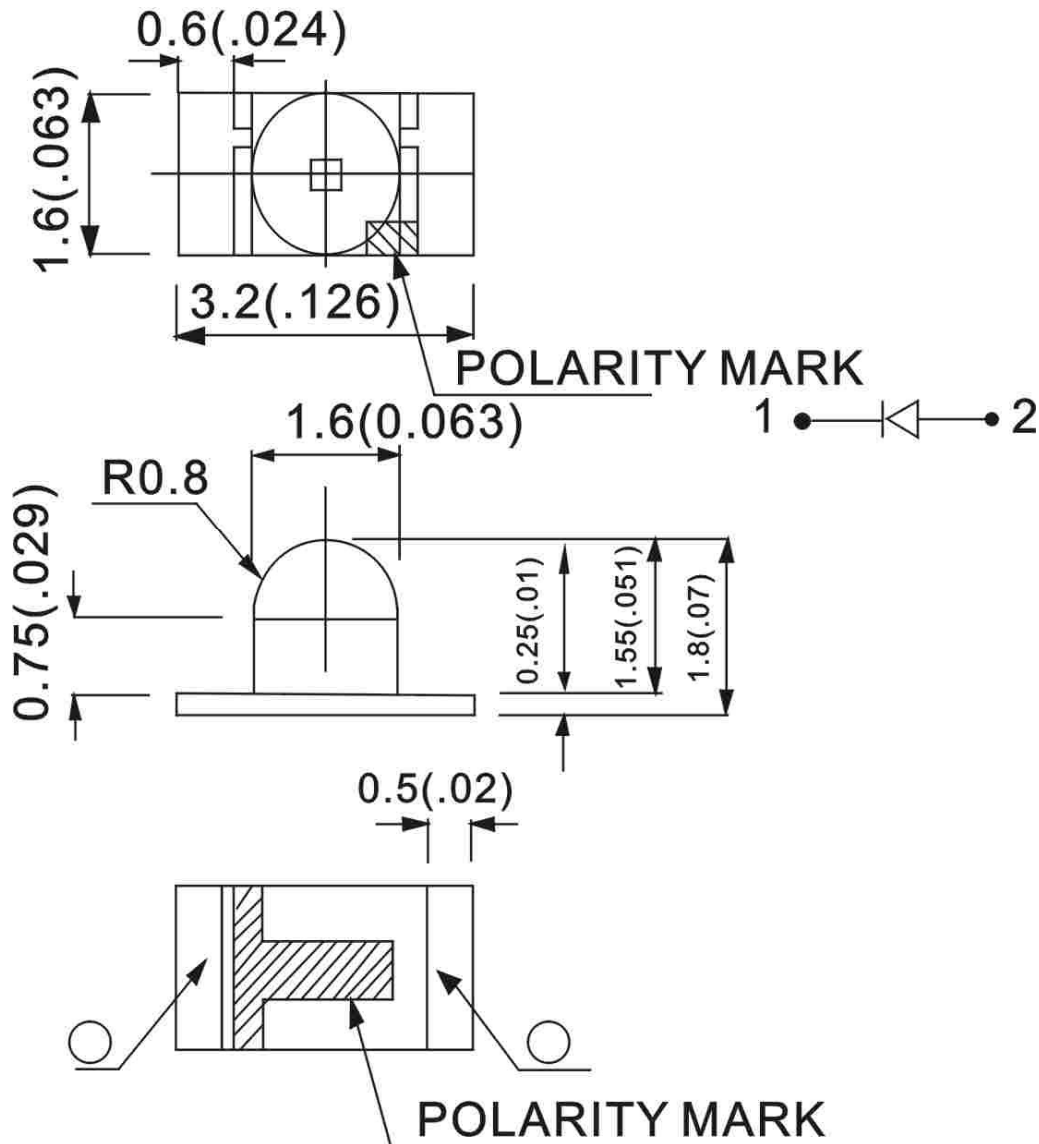
Parameter	UDR	UHR	UE	UHD	UYO	UY	UG	PG	BG	DNB	UB	UW	Unit
Forward Current I <sub>F</sub>	30	30	30	30	30	30	30	30	30	30	30	30	mA
Power Dissipation P <sub>d</sub>	78	78	78	78	78	78	78	78	78	78	78	78	mW
Reverse Voltage V <sub>R</sub>	5	5	5	5	5	5	5	5	5	5	5	5	V
Peak Forward Current I <sub>PF</sub> (Duty 1/10 @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

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■ **Package configuration & Internal circuit diagram**

# BL-LS3216A0E1 Series



**Notes:**

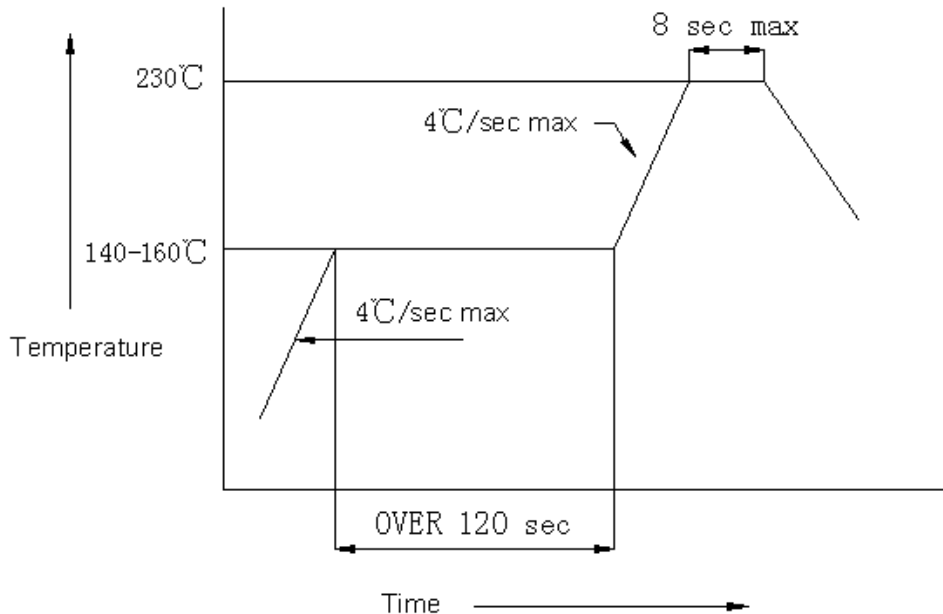
1. All dimensions are in millimeters (inches)
2. Tolerance is  $\pm 0.25(0.01)$  unless otherwise noted.
3. Specifications are subject to change without notice.

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**■ Smt Reflow Soldering Instructions**

Number of reflow process shall be less than 2 times and cooling process to normal temperature is required between first and second soldering process

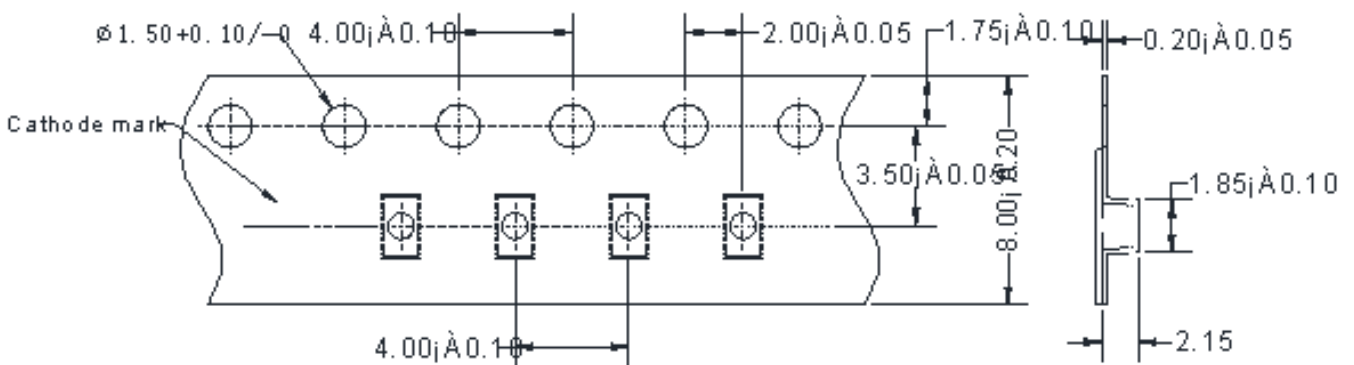


**■ Tape Specifications**

(Units:mm)

Unit ±0.1mm

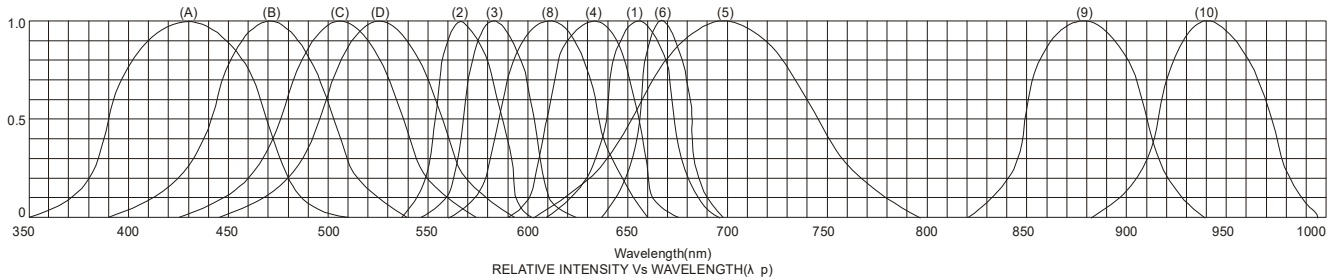
Tolerance ±0.1



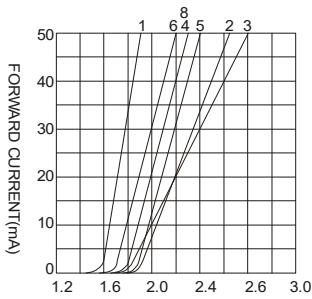
## SMD LED LAMP

BL-LS3216A0E1

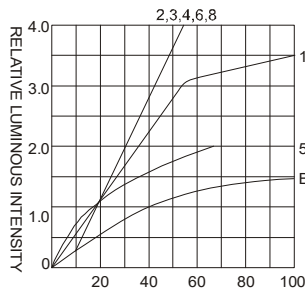
### Typical electrical-optical characteristics curves:



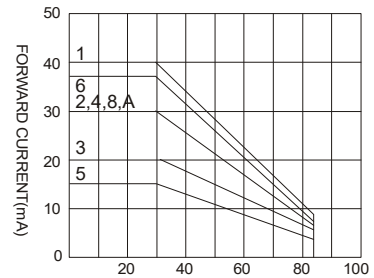
- |   |                                      |
|---|--------------------------------------|
| (1) - GaAsP/GaAs 655nm/Red                | (9) - GaAlAs 880nm                   |
| (2) - GaP 570nm/Yellow Green              | (10) - GaAs/GaAs & GaAlAs/GaAs 940nm |
| (3) - GaAsP/GaP 585nm/Yellow        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



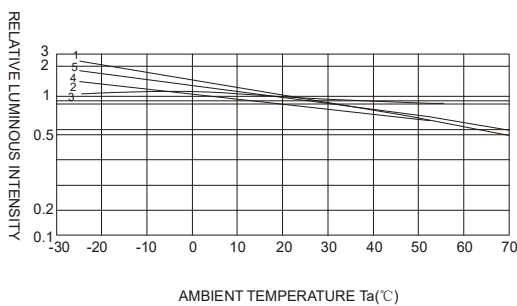
FORWARD VOLTAGE (Vf)  
FORWARD CURRENT VS.  
FORWARD VOLTAGE



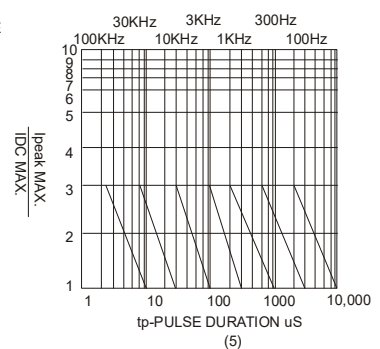
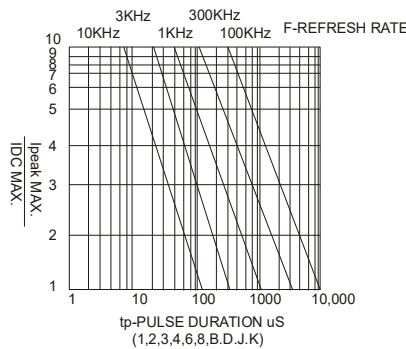
FORWARD CURRENT (mA)  
RELATIVE LUMINOUS  
INTENSITY VS. FORWARD  
CURRENT



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**

