

SMD LED LAMP
BL-LS1608A0E1
Features:

- 1.6mmx0.8mm SMD, 0.6mm 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 | λp (nm) | | Typ | Max | Min. | Typ. | |
| | | | | | | | | | |
| BL-LS1608A0E1HC | Red | GaP | 700 | Water Clear | 2.2 | 2.7 | 0.2 | 0.8 | 130 |
| BL-LS1608A0E1SRC | Super Red | AlGaAs | 660 | | 1.85 | 2.30 | 2 | 10 | |
| BL-LS1608A0E1LRC | Super Red | AlGaAs | 660 | | 1.85 | 2.30 | 8 | 25 | |
| BL-LS1608A0E1URC | Ultra Red | AlGaAs | 660 | | 1.95 | 2.50 | 15 | 40 | |
| BL-LS1608A0E1EC | Red | GaAsP | 640 | | 2.10 | 2.70 | 1 | 5 | |
| BL-LS1608A0E1YC | Yellow | GaAsP | 583 | | 2.15 | 2.70 | 1 | 5 | |
| BL-LS1608A0E1GC | Green | GaP | 568 | | 2.30 | 2.70 | 5 | 12 | |

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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BL-LS1608A0E1
■ 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-LS1608A0E1UDR | Ultra Red | AlGaAs | 655 | |
| BL-LS1608A0E1UHR | Ultra Red | AlGaAs | 645 | 2.10 | 2.60 | 25 | 75 | | |
| BL-LS1608A0E1UEC | Ultra Red | AlGaAs | 630 | 2.10 | 2.50 | 20 | 70 | | |
| BL-LS1608A0E1UHD | Ultra Red | AlGaAs | 618 | 2.10 | 2.60 | 45 | 105 | | |
| BL-LS1608A0E1UYO | Ultra Amber | AlGaInP | 610 | 2.10 | 2.60 | 25 | 75 | | |
| BL-LS1608A0E1UYC | Ultra Yellow | AlGaInP | 593 | 2.10 | 2.60 | 20 | 65 | | |
| BL-LS1608A0E1UGC | Ultra Green | AlGaInP | 575 | 2.20 | 2.70 | 10 | 35 | | |
| BL-LS1608A0E1PGC | Ultra Pure Green | InGaN | 525 | 3.50 | 4.20 | 50 | 100 | | |
| BL-LS1608A0E1BGC | Ultra Bluish Green | InGaN | 505 | 3.50 | 4.20 | 50 | 100 | | |
| BL-LS1608A0E1DNB | Blue | InGaN | 470 | 3.50 | 4.20 | 10 | 30 | | |
| BL-LS1608A0E1UBC | Ultra Blue | InGaN | 470 | 3.50 | 4.20 | 10 | 25 | | |
| BL-LS1608A0E1UWC | Ultra White | InGaN | / | 3.50 | 4.20 | 40 | 200 | | |

■ Absolute maximum ratings (Ta=25°C)

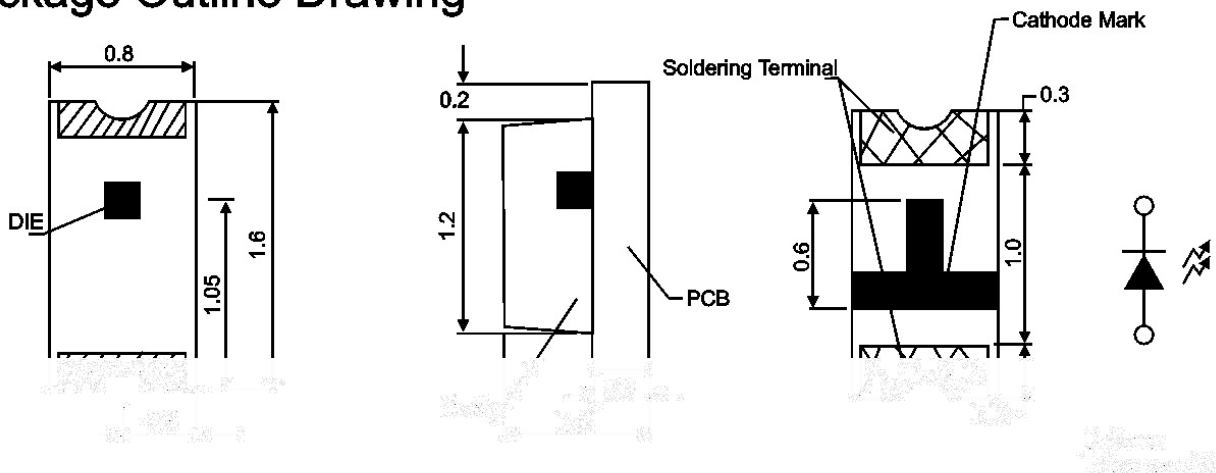
| Parameter | UDR | UHR | UE | UHD | UYO | UY | UG | PG | BG | DNB | UB | UW | Unit |
|---|--|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|
| Forward Current I _F | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | mA |
| Power Dissipation P _d | 78 | 78 | 78 | 78 | 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 |

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■ **Package configuration & Internal circuit diagram**

**BL-LS1608A0E1 Series
Package Outline Drawing**



Dimensional Drawing Pad Dimensions



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.

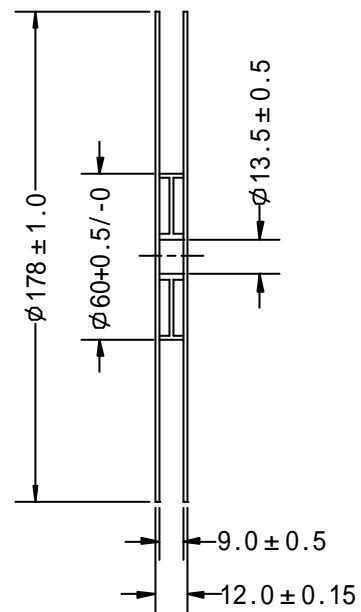
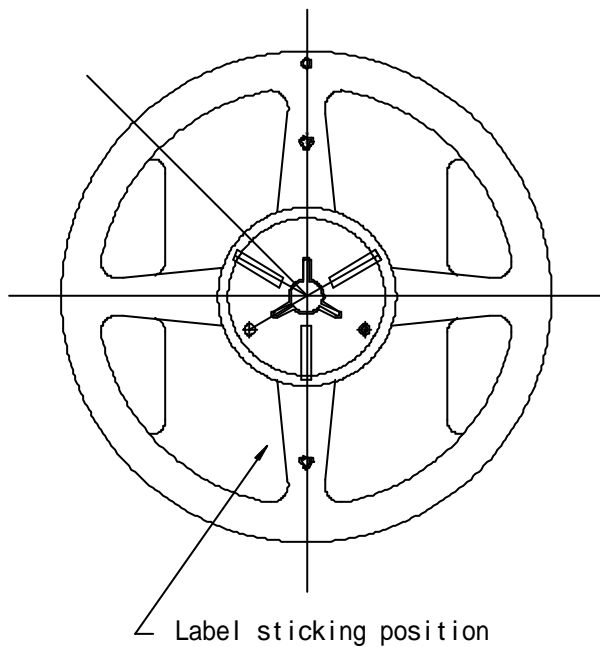
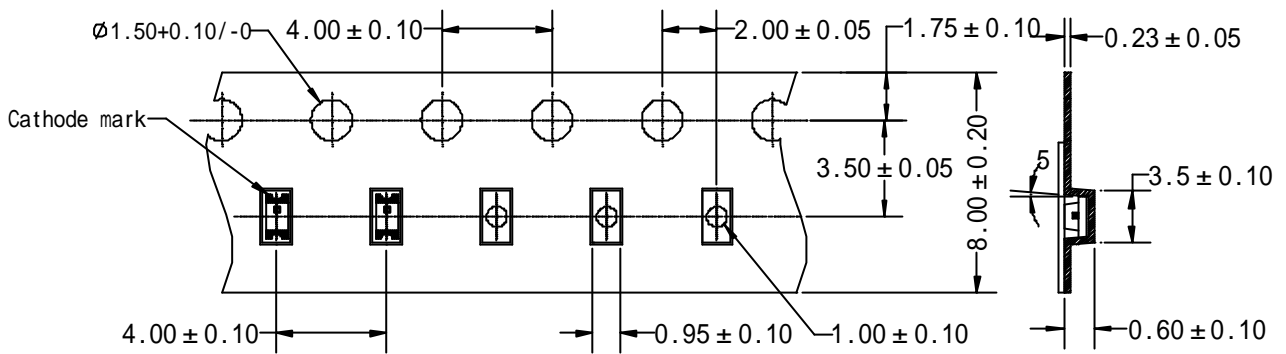
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■ **Tape Specifications**

Unit : mm

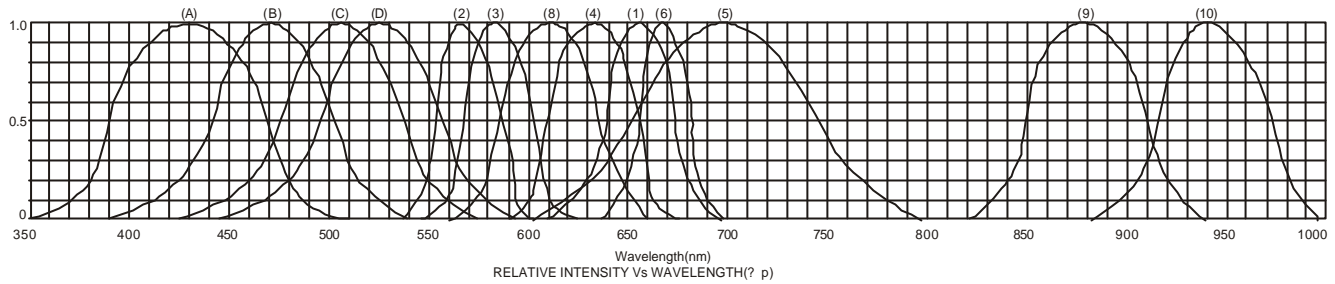
Tolerance : ± 0.1



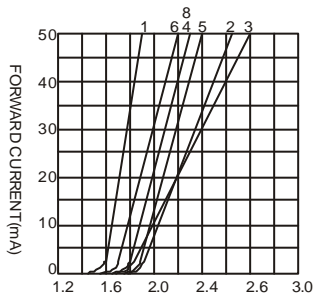
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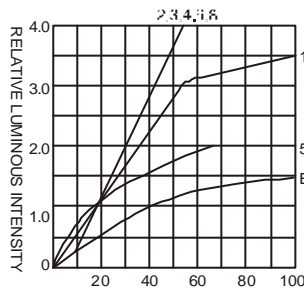
Typical electrical-optical characteristics curves:



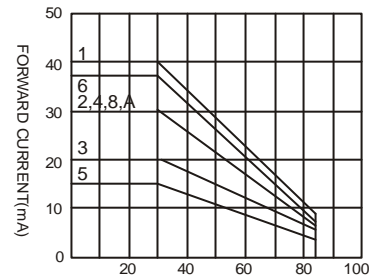
- (1) - GaAsP/GaAs 655nm/Red
- (2) - GaP 570nm/Yellow Green
- (3) - GaAsP/GaP 585nm/Yellow
- (4) - GaAsP/GaP 635nm/Orange & Hi-Eff Red
- (5) - GaP 700nm/Bright Red
- (6) - GaAlAs/GaAs 660nm/Super Red
- (8) - GaAsP/GaP 610nm/Super Red
- (9) - GaAlAs 880nm
- (10) - GaAs/GaAs & GaAlAs/GaAs 940nm
- (A) -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



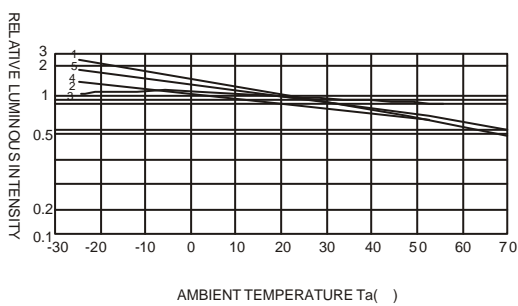
FORWARD VOLTAGE (Vf)
FORWARD CURRENT VS.
FORWARD VOLTAGE



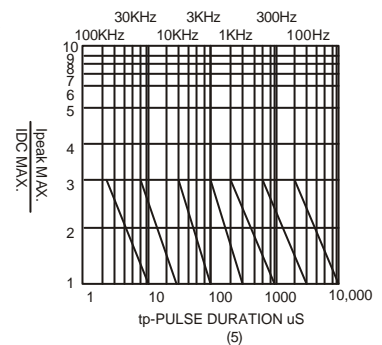
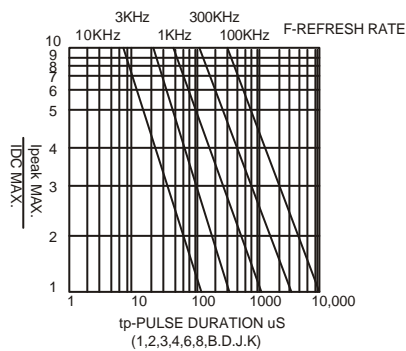
FORWARD CURRENT (mA)
RELATIVE LUMINOUS
INTENSITY VS. FORWARD
CURRENT



AMBIENT TEMPERATURE Ta ()
FORWARD CURRENT VS. AMBIENT
TEMPERATURE



AMBIENT TEMPERATURE Ta ()



NOTE:25 free air temperature unless otherwise specified

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■ **Packing and weighting**

