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G8HD3131E

TECHNICAL DATA

Visible LED 3 mm, dual chip

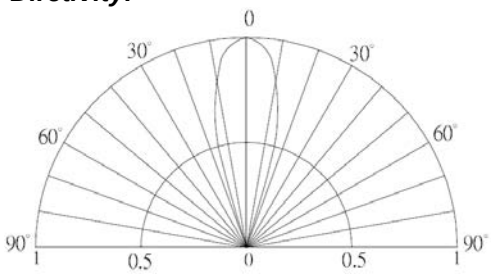
Features

- High Luminous LEDs
- 3mm Round Standard Directivity
- Superior Weather-resistance
- UV Resistant Epoxy
- Water Clear Type

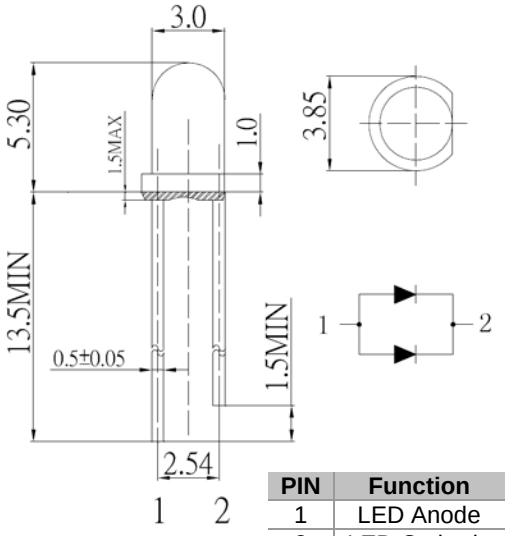
Applications

- Electronic Sign and Signals
- Small Area Illuminations
- Back Lighting
- Other Lighting

Diretivity:



Outline Dimension:



PIN	Function
1	LED Anode
2	LED Cathode

Unit: mm
Tolerance: ±0.3 mm

Absolute Maximum Ratings (T_a=25°C)

Item	Symbol	Value	Unit
Power Dissipation	P_D	130	mW
Forward Current	I_F	50	mA
Pulse Forward Current *	I_{FP}	100	mA
Reverse Voltage	V_R	5	V
Operating Temperature	T_{opr}	-30 … +85	°C
Storage Temperature	T_{stg}	-40 … +100	°C
Soldering Temperature (5 sec.)	T_{sol}	260	°C

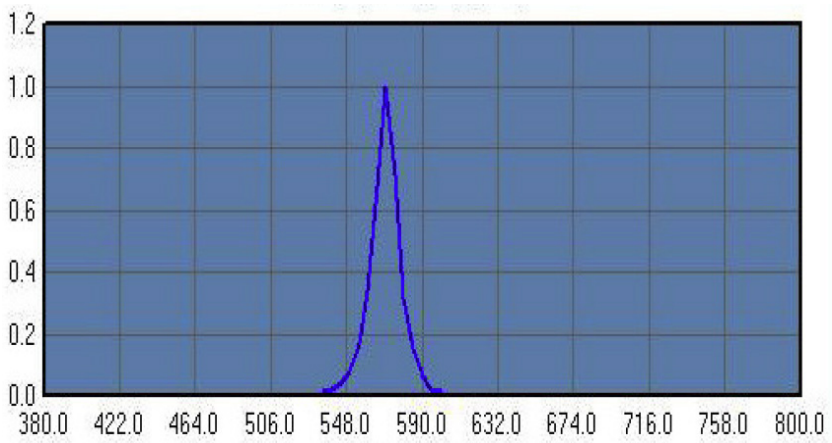
* pulse width max. 10 ms, duty ratio max. 1/10

Specifications (T_a=25°C)

Item	Condition	Symbol	Min.	Typ.	Max.	Unit
Optical Specifications						
Luminous Intensity *[1]	I_F = 40 mA	I_V	1560	2180	-	mcd
Dominant Wavelength	I_F = 40 mA	λ_D	565	570	575	nm
Viewing Angle	I_F = 40 mA	$2\Theta_{1/2}$	-	30	-	deg
Electrical Specifications						
Forward Voltage	I_F = 40 mA	U_F	1.8	2.1	2.6	V
Reverse Voltage	U_F = 5 V	U_R	-	-	10	µA

*[1] Tolerance of chromaticity coordinates is ±10%
*[2] Tolerance of luminous intensity is ±15%

Spectral emission



Precaution for Use

1. Cautions

- DO NOT look directly into the light or look through the optical system.

2. Lead Forming

- When forming leads, the leads should be bent at a point at least 3 mm from the base of the lead. DO NOT use the base of the leadframe as a fulcrum during lead forming.
- Lead forming should be done before soldering.
- DO NOT apply any bending stress to the base of the lead. The stress to the base may damage the LED's characteristics or it may break the LEDs.
- When mounted the LEDs onto the printed circuit board, the holes on the circuit board should be exactly aligned with the leads of LEDs. If the LEDs are mounted with stress at the leads, it causes deterioration of the lead and it will degrade the LEDs.

3. Soldering Conditions

- Solder the LEDs no closer than 3 mm from the base of the lead.
- Recommended soldering conditions:

Dip Soldering	
Pre-Heat	120 °C Max.
Pre-Heat Time	60 Seconds Max.
Solder Bath Temperature	260 °C Max.
Dipping Time	5 Seconds Max.
Dipping Position	No lower than 3 mm from the base of the epoxy bulb

- DO NOT apply any stress to the lead particularly when heat.
- The LEDs must not be reposition after soldering.
- After soldering the LEDs, the lead should be protected from mechanical shock or vibration until the LEDs return to room temperature.
- When it is necessary to clamp the LEDs to prevent soldering failure, it is important to minimize the mechanical stress on the LEDs.
- Cut the LED leads at room temperature. Cutting the leads at high temperature may cause the failure of the LEDs.

4. Static Electricity

- The LEDs are very sensitive to Static Electricity and surge voltage. So it is recommended that a wrist band or an anti-electrostatic glove be used when handling the LEDs.
- All devices, equipment and machinery must be grounded properly. It is recommended that precautions should be taken against surge voltage to the equipment that mounts the LEDs.

5. Heat Generation

- The powered LEDs generate heat. Heat dissipation should be considered in the application design to avoid the environmental conditions for operation in excess of the absolute maximum ratings.