

23×168MM BLUE BACKLIGHT

A-TBL-31170UB12

Features

- ※ 23×168mm is emitting surface size of backlight
- ※ Low power requirement, solid state reliability.
- ※ Multicolor available, stackable horizontally.
- ※ Categorized for luminous intensity.
- ※ Easy mounting on P.C. boards.
- ※ Remain within RoHS compliant version.

Applications

- ※ General lighting solutions
- ※ LCD display backlight

Ordering Information

Part Number	Emission Size	Emission Color	Brightness IV (cd/m ²)		
			Min.	Typ.	Max.
A-TBL-31170UB12	23×168MM	Blue	100	200	300

Maximum Ratings

Parameter	Symbol	Value	Unit
Operating temperature	T _{OP}	-35 ~ 85	°C
Storage temperature	T _{STG}	-35 ~ 85	°C
Peak forward current (T _A =25 °C) *1	I _{PF}	120	mA
Reverse voltage (TA=25 °C)	V _R	5	V
Power consumption (TA=25 °C)	P	1000	mW

*1 at 1/10 Duty Cycle

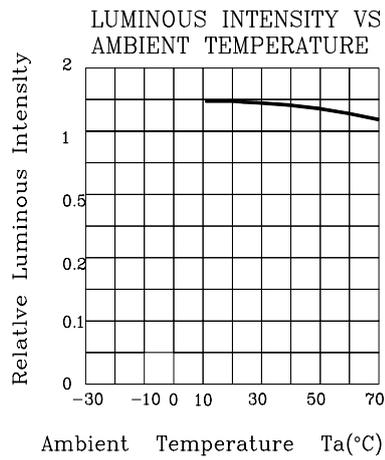
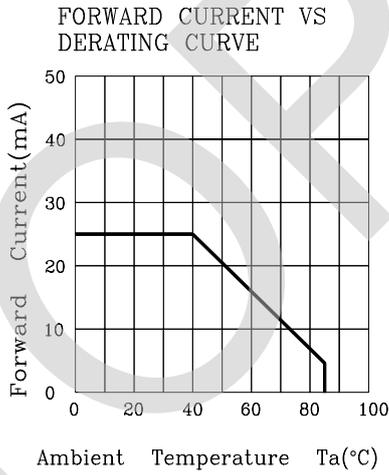
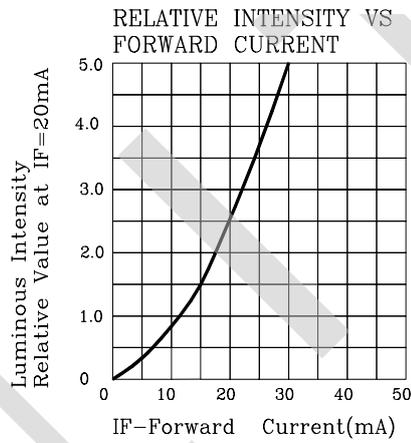
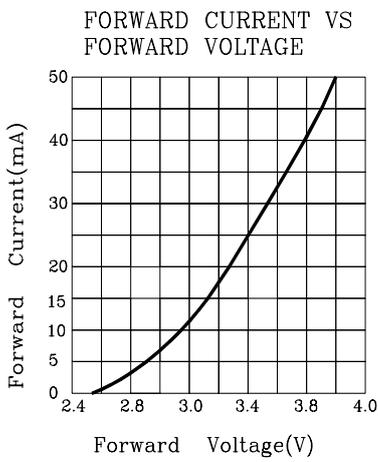
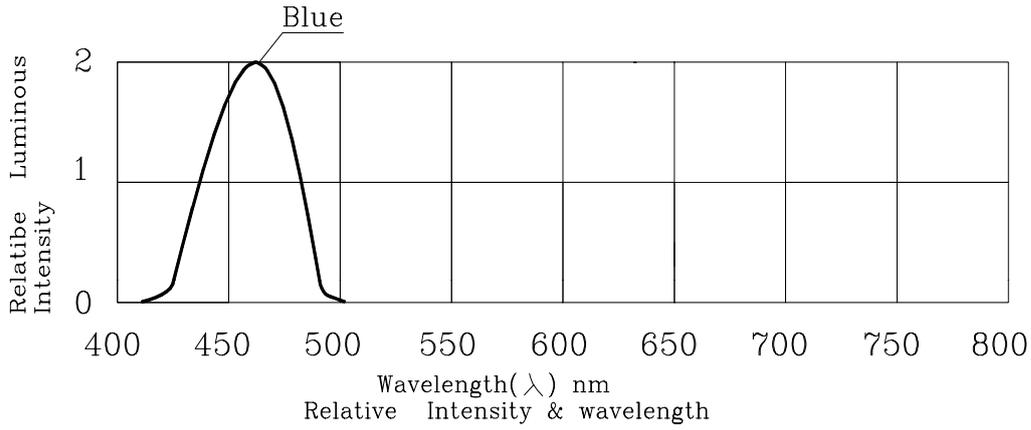
Electrical / Optical Characteristics (1)(T_A = 25 °C & IF = 20mA)

Parameter	Symbol	Value	Unit
Wavelength at peak emission (Typ.)	λ _p	460	nm
Spectral bandwidth at 50% (Typ.)	Δλ	30	nm
Forward Current	(Min.)	I _F	80
	(Typ.)	I _F	90
	(Max.)	I _F	100
Forward voltage	(Min.)	V _F	-
	(Typ.)	V _F	10
	(Max.)	V _F	-
Color temperature	(Min.)	TC	-
	(Max.)	TC	-
Luminous Uniformity (Typ.)	-	85%	-
Discreteness (Typ.)	-	15%	-

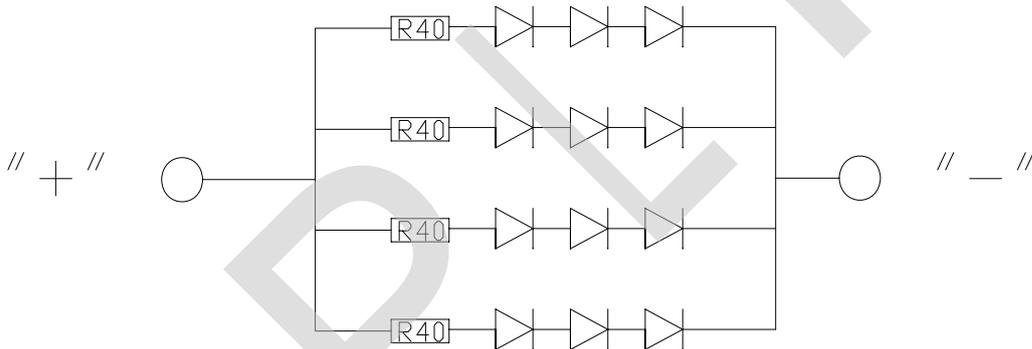
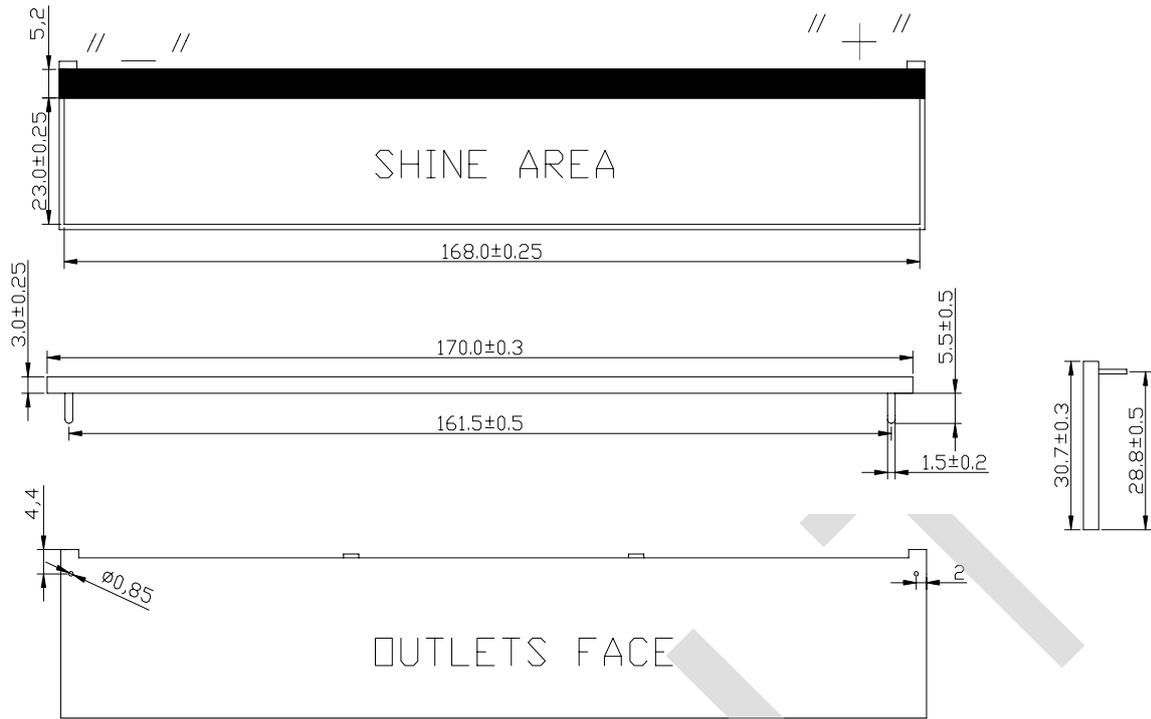
Luminous Intensity Bin Groups(T_A = 25 °C)

Brightness IV (cd/m ²)		
Min.	Typ.	Max.
100	200	300

Electrical/Optical Characteristic (2)



Package Outline Dimensions



Notes:

1. All dimensions are in millimeters. Tolerance is +/-0.25 unless otherwise noted.
2. The specifications, characteristics and technical data described in the datasheet are subject to change without prior notice.

Display Soldering Conditions

The recommended conditions for soldering are as follows. Because the component is made with epoxy resin, the units are susceptible to heat. Therefore, the preheating and soldering temperatures should be kept as low as possible to avoid damage.

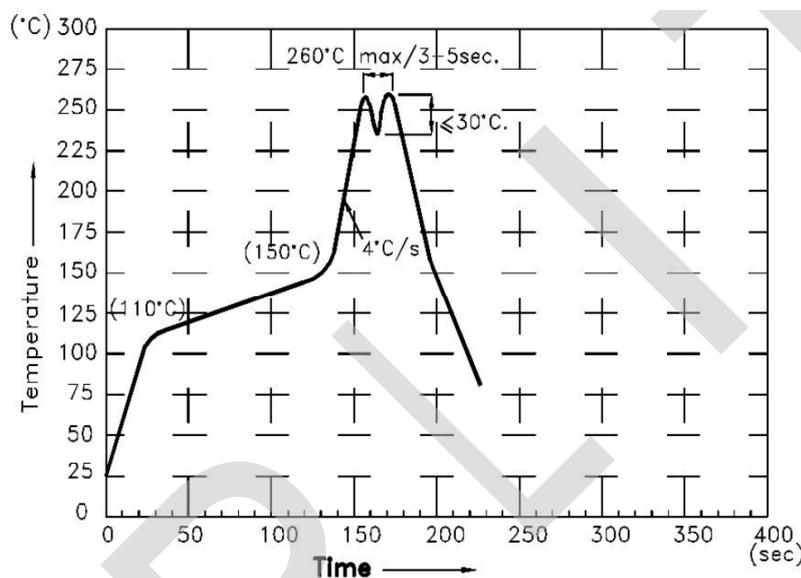
1 . Manual Soldering Conditions(with 1.5mm Iron tip)

Iron Tip Temperature: 350°C Max, Time: 3s Max

Position: The iron should be situated at least 2mm away from the root of the leads.

2 . Through the Wave Soldering Conditions

Wave Soldering Profile For Lead-free Through-hole LED



3 . Soldering General Notes:

- TOPLITE recommend manual soldering to be used only for repair and rework purposes. The soldering iron should not exceed 30W in power. The tip of the soldering iron should not touch the reflector case to avoid heat-damage.
- Maintain the pre-heat and peak temperatures with dip units as low as possible and the times as short as is feasible, since the products are susceptible to heat during flow soldering.
- After soldering, allow at least three minutes for the component to cool to room temperature before further operations.
- If components will undergo multiple soldering processes, or other processes where the components may be subjected to intense heat, please check with TOPLITE for compatibility.