BRIGHTEK

BRIGHTEK (EUROPE) LIMITED

Brighten Up The World With LED!

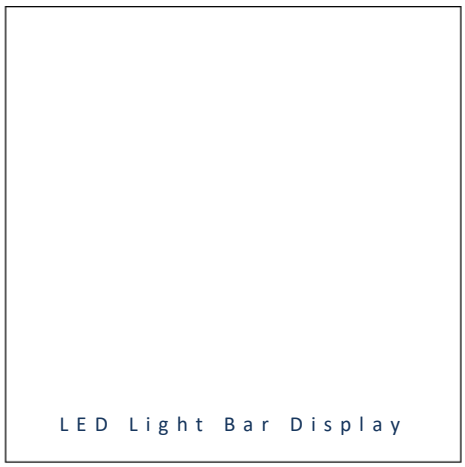
ISO/TS 16949:2009 BS EN ISO 14001:2004 QC 080000 IECQ HSPM

PRODUCT DATASHEET

- ▶ LED Light Bar Display
- ▶ 18mm Round 11.0t
- ▶ Red (625nm)

Release Date: 02 January 2026 Version: A1.0

N0R71D57



LED Light Bar Display

RoHS Compliant

FEATURES:

- **Package:** PTH Light Bar Module 18mm Round
- **Forward Current:** 40mA
- **Forward Voltage (typ.):** 4.0V
- **Colour:** Red
- **Dominant Wavelength (typ.):** 625nm
- **Luminous Intensity (typ.):** 25mcd@40mA
- **Materials:**
  - Die: AlInGaP
  - Resin: Epoxy (Red Diffused)
- **Operating Temperature:** -40~+85°C
- **Storage Temperature:** -40~+100°C
- **Grouping Parameters:**
  - Forward voltage
  - Luminous intensity
  - Dominant wavelength
- **Soldering Methods:** Hand Solder or Reflow
- **Packing:** bulk in carton

APPLICATIONS:

- Decorative Light
- Commercial Lighting
- 3C Consumer Goods

CHARACTERISTICS:

Absolute Maximum Characteristics (T_a=25°C)

Parameter	Symbol	Ratings	Unit
Forward Current	I_F	50	mA
Peak Forward Current Duty 1/10 @1KHz	I_{FP}	100	mA
Reverse Voltage	V_R	5	V
Reverse Current @5V	I_R	10	μA
Power Dissipation	P_D	300	mW
Electrostatic Discharge (HBM)	ESD	2000	V
Operating Temperature	T_{OPR}	-40~+85	°C
Storage Temperature	T_{STG}	-40~+100	°C

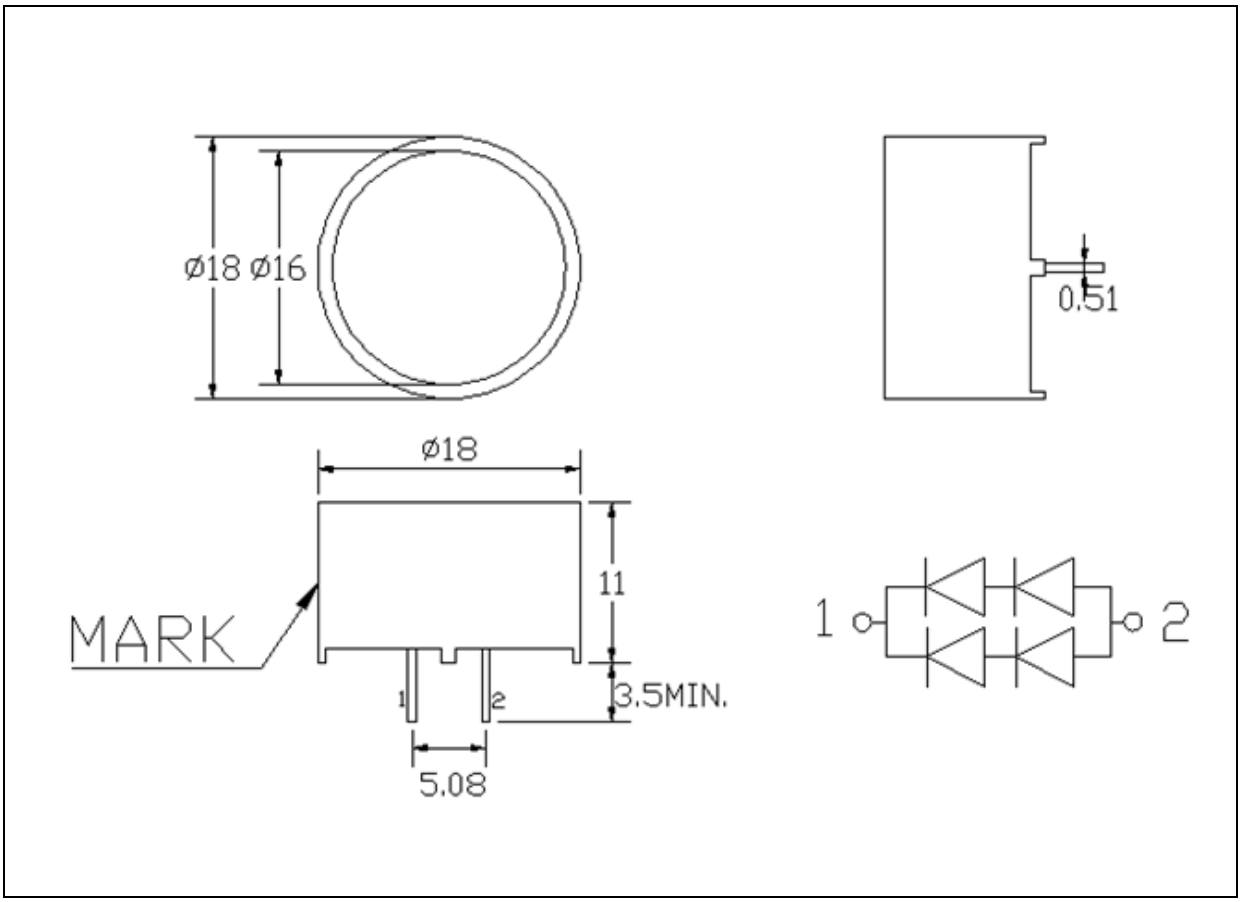
Electrical & Optical Characteristics (T_a=25°C)

Parameter	Symbol	Values			Unit	Test Condition
		Min.	Typ.	Max.		
Forward Voltage	V_F	3.6	4.0	4.8	V	I_F=40mA
Luminous Intensity	IV	20	25	35	mcd	I_F=40mA
Peak Wavelength	λ_P	---	635	---	nm	I_F=40mA
Dominant Wavelength	λ_D	620	625	630	nm	I_F=40mA
Spectral Line Half-Width	$\Delta\lambda$	---	18	---	nm	I_F=40mA

1. Luminous intensity (I_V) ±15%, Forward Voltage (V_F) ±0.1V, Viewing angle($2\theta_{1/2}$) ±5%

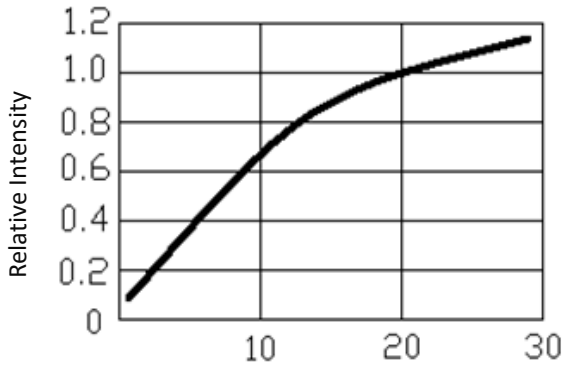
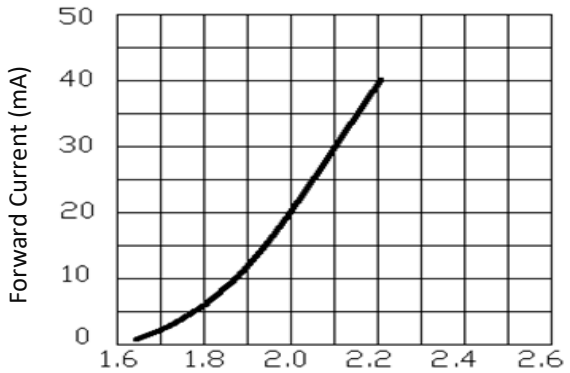
OUTLINE DIMENSION:

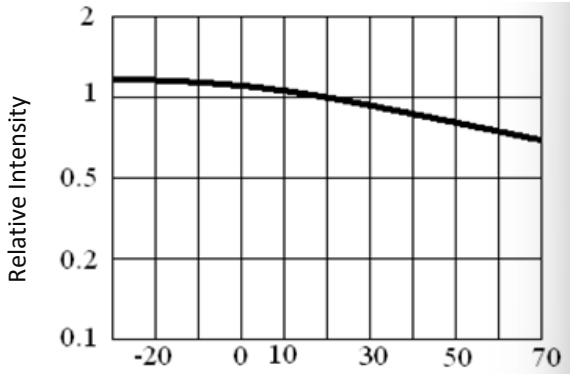
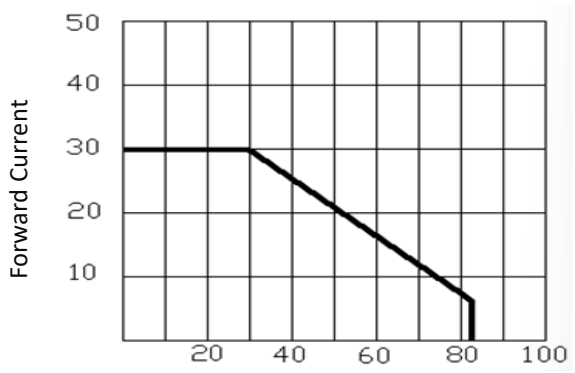
Package Dimension:



1. All dimensions are in millimetre (mm).
2. Tolerance ±0.25mm, unless otherwise noted.

ELECTRO-OPTICAL CHARACTERISTICS (PER DIE):

Relative Intensity v.s. Forward Current	Forward Current v.s. Forward Voltage
	

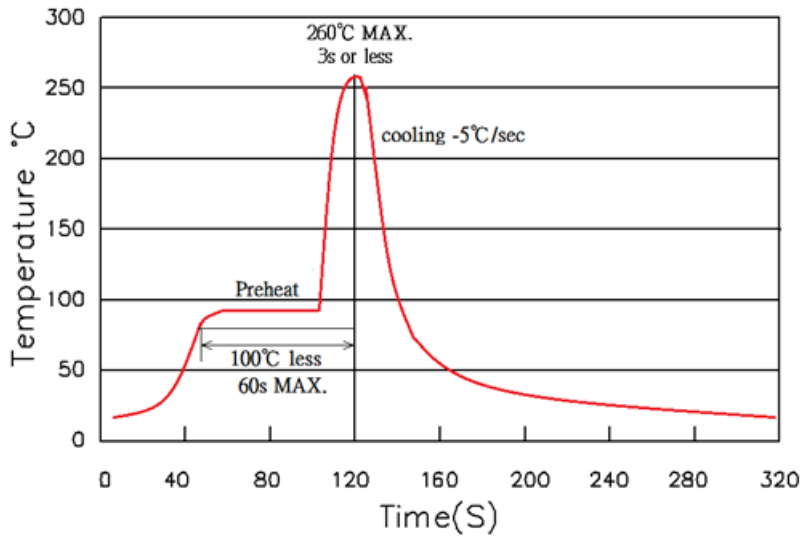
Relative Intensity v.s. Temperature	Forward Current v.s. Temperature
	

RECOMMENDED SOLDERING PROFILE:

Hand Solder (Solder Iron):

- Temperature at tip of iron: 350°C Max.
- Soldering Time: 3 seconds ± 1 sec.

Soldering Heat (DIP):



Note:

1. Maximum reflow soldering: 1 time.
2. Before, during, and after soldering, should not apply stress on the components and PCB board.

PRECAUTIONS OF USE:

Storage:

It is recommended to store the products in the following conditions:

- Humidity: 60% R.H. Max.
- Temperature: 5°C~30°C (41°F ~86°F).

Shelf life in sealed bag: 12 months at 5°C~30°C and <60% R.H.

Once the package is opened, the products should be used within a year. Otherwise, they should be kept in a damp-proof box with descanting agent <10% R.H. and apply baking before use.

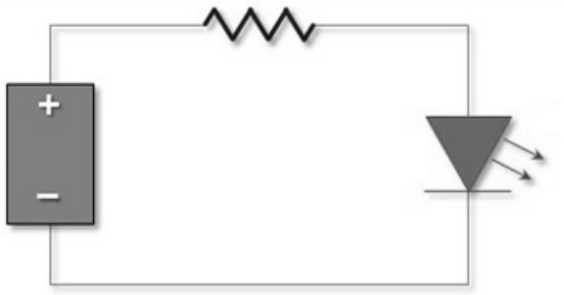
Baking:

It is recommended to bake the LED before soldering if the pack has been unsealed for longer than a week. The suggested baking conditions are as followings:

- 60±3°C x 24hrs and <5%RH, bulk package.

It's normal to see slight color fading of carrier (light yellow) after baking in process.

Testing Circuit:



Must apply resistor(s) for protection (over current proof).

Cleaning:

Use alcohol-based cleaning solvents such as isopropyl alcohol to clean the LED carrier / package. Avoid putting any stress force directly on to the LED lens.

ESD (Electrostatic Discharge):

Static Electricity or power surge will damage the LED. Use of a conductive wrist band or anti-electrosatic glove is recommended when handing the LED all time. All devices, equipment, machinery, work tables, and storage racks must be properly grounded.

In the events of manual working in process, make sure the devices are well protected from ESD at any time.

REVISION RECORD:

Version	Date	Summary of Revision
A1.0	02/01/2026	Datasheet set-up.