



BRIGHTTEK
BRIGHTTEK (EUROPE) LIMITED

Brighten Up The World With LED!



ISO/TS 16949:2009



BS EN ISO 14001:2004



QC 080000 IECQ HSPM

PRODUCT DATASHEET

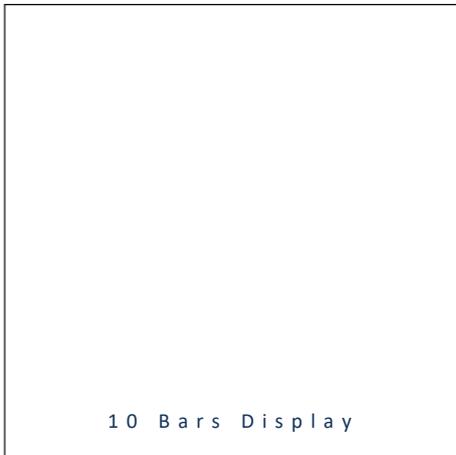


- ▶ Graphic Display
- ▶ 10 Bars
- ▶ Yellow (590nm)

NOY58D90BS



Release Date: 08 December 2023 Version: A1.1



10 Bars Display

Graphic Display

RoHS
Compliant



FEATURES:

- **Package:** Throughhole 10 Bars LED Graphic Display
- **Forward Current:** 20mA*
- **Forward Voltage (typ.):** 2.0V*
- **Luminous Intensity (typ.):** 26mcd@20mA*
- **Colour:** Yellow
- **Dominant Wavelength (typ.):** 590nm
- **Materials:**
 - Die: AlInGaP
 - Resin: Epoxy (White Diffused)
 - Surface Colour: Black
- **Operating Temperature:** -25~+85°C
- **Storage Temperature:** -30~+85°C
- **Grouping Parameters:**
 - Forward voltage
 - Luminous intensity
 - Dominant wavelength
- **Soldering Methods:** Soldering Heat
- **Packing:** Bulk max.500pcs/carton

* per single bar

APPLICATIONS:

- LED Display
- Indicator
- Counting System

CHARACTERISTICS:

Absolute Maximum Characteristics (Ta=25°C)

Parameter	Symbol	Ratings	Unit
Forward Current	I _F	20	mA
Peak Forward Current Duty 1/10, 0.1mS width	I _{FP}	80	mA
Reverse Voltage	V _R	5	V
Reverse Current @5V	I _R	10	μA
Power Dissipation	P _D	75	mW
Operating Temperature	T _{OPR}	-25~+85	°C
Storage Temperature	T _{STG}	-30~+85	°C

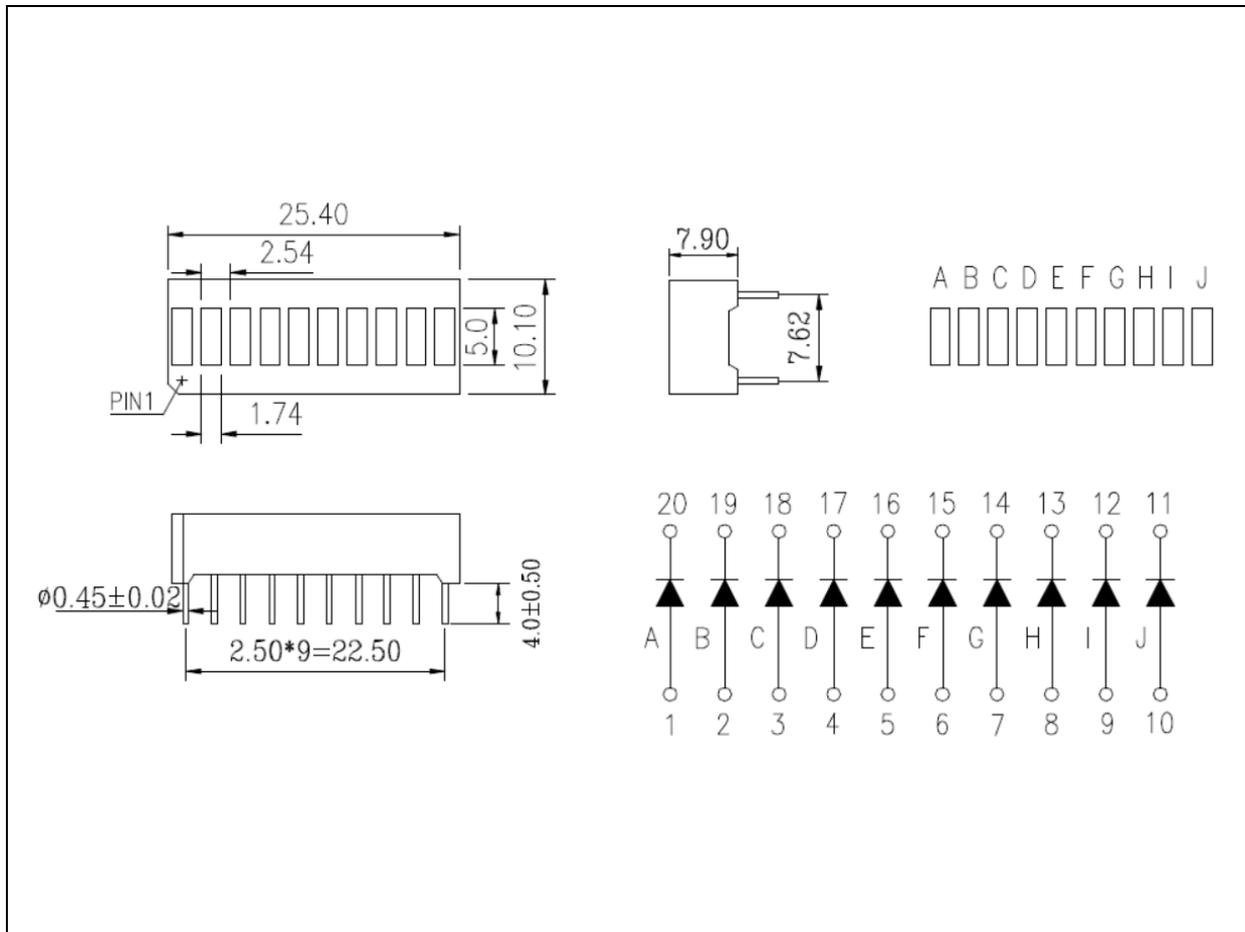
Electrical & Optical Characteristics (Ta=25°C)

Parameter	Symbol	Values			Unit	Test Condition
		Min.	Typ.	Max.		
Forward Voltage	V _F	1.8	2.0	2.3	V	I _F =20mA
Luminous Intensity	I _v	10.3	15.5	---	mcd	I _F =10mA
		---	26.0	---		I _F =20mA
Dominant Wavelength	λ _D	587	590	593	nm	I _F =20mA
Peak Wavelength	λ _P	---	590	---	nm	I _F =20mA
Spectral Half Bandwidth	Δλ	---	15	---	nm	I _F =20mA
Viewing Angle	2θ _{1/2}	---	---	---	deg	I _F =20mA

- Luminous intensity (I_v) ±15%, Forward Voltage (V_F) ±0.1V, Viewing angle(2θ_{1/2}) ±5%

OUTLINE DIMENSION:

Package Dimension:



1. All dimensions are in millimetre (mm).
2. Tolerance ± 0.2 mm, unless otherwise noted.

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 desiccating 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 24hrs. The suggested baking conditions are as followings:

- 60±3°C x 24hrs and <5%RH, taped / reel 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-electrostatic glove is recommended when handling 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	30/03/2021	Datasheet set-up.
A1.1	08/12/2023	Revise storage condition.