

10 Segment Light Bars Displays  
Technical Data Sheet

## Features:

- ◇ Industrial standard size.
- ◇ Low power consumption.
- ◇ Categorized for luminous intensity.
- ◇ The product itself will remain within RoHS compliant Version.

## Descriptions:

- ◇ The KWL-R1025 series is 10 Segment light bar display, designed for viewing distances up to 7 meters.
- ◇ These devices are made with yellow segments and black surface.

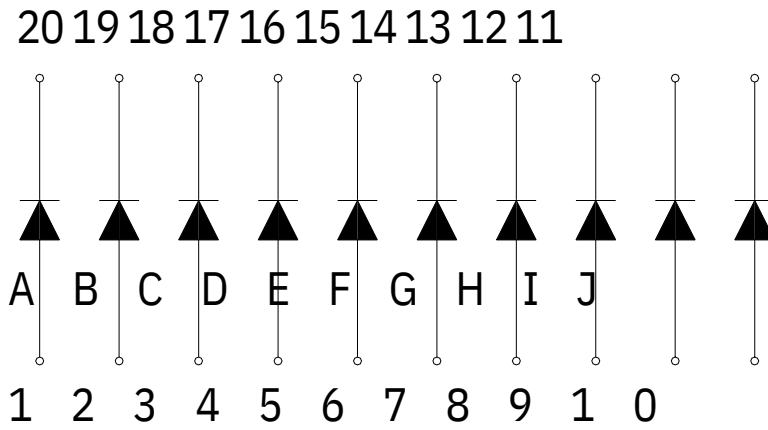
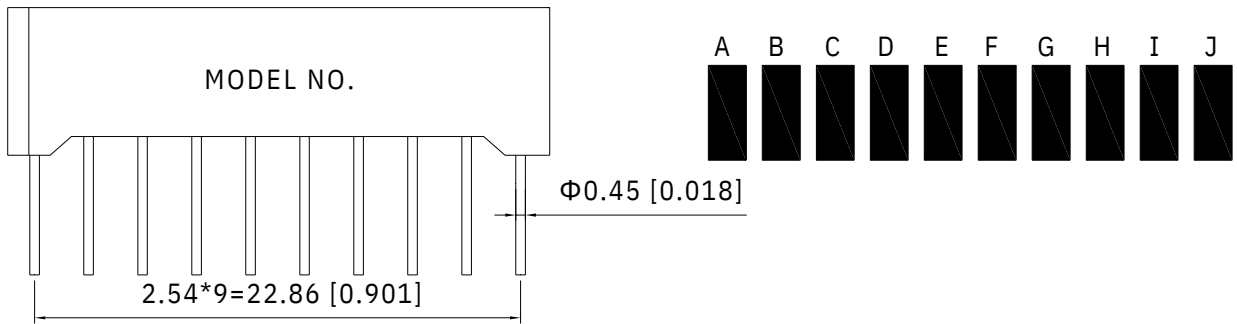
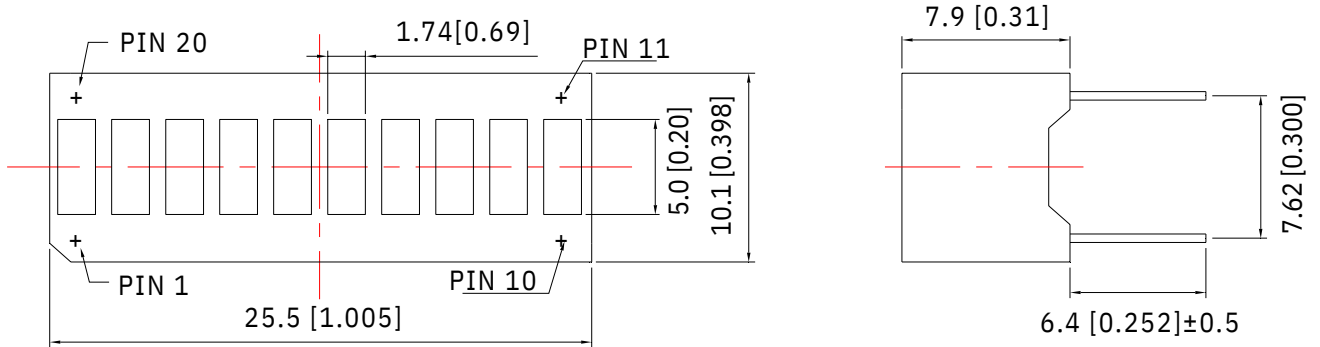
## Applications:

- ◇ Audio equipment.
- ◇ Instrument panels.
- ◇ Digital read out display.

## Device Selection Guide:

Part No.	Chip Material	Face Color	Source Color
KWL-R1025WB-Y	InGaN	Black	White

Package Dimension:



Notes:

- 1 All dimensions are in millimeters (inches).
- 2 Tolerance is ± 0.25 mm (.010") unless otherwise noted.
- 3 Specifications are subject to change without notice.

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### Absolute Maximum Ratings at Ta=25°C

Parameters	Symbol	Max.	Unit
Power Dissipation Per Segment	PD	100 mW	
Peak Forward Current Per Segment (1/10 Duty Cycle, 0.1ms Pulse Width)	IF	100 mA	
Forward Current Per Segment	P	25mA	
Dating Linear From 50°C	IF	0.4 mA/°C	
Reverse Voltage		5 V	
Operating Temperature Range	VR	-40°C to +80°C	
Storage Temperature Range	Top	-40°C to +85°C	
Soldering Temperature	r	260°C for 5 Seconds	
	Tst		
	g		

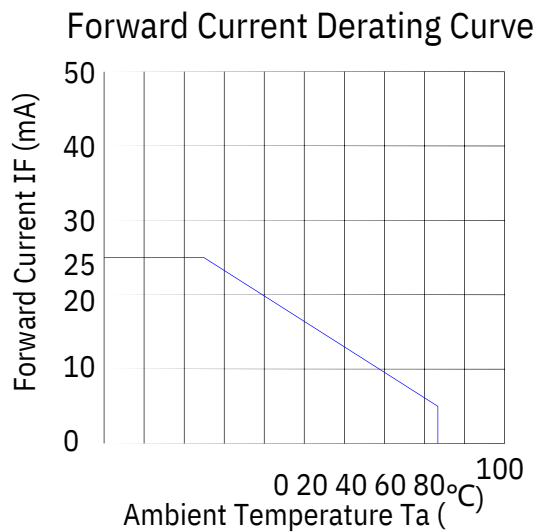
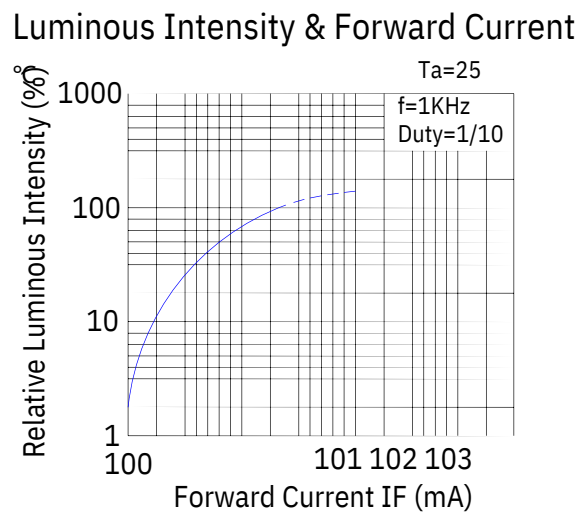
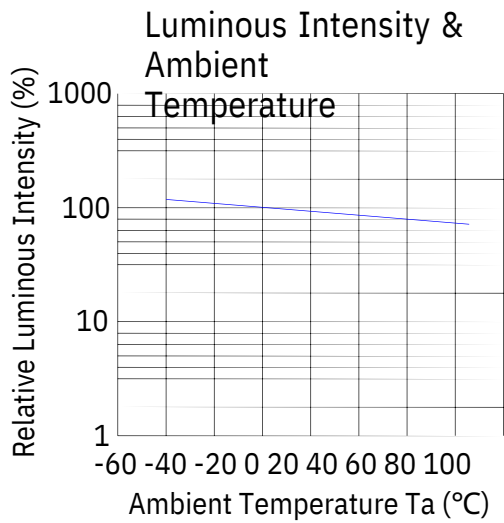
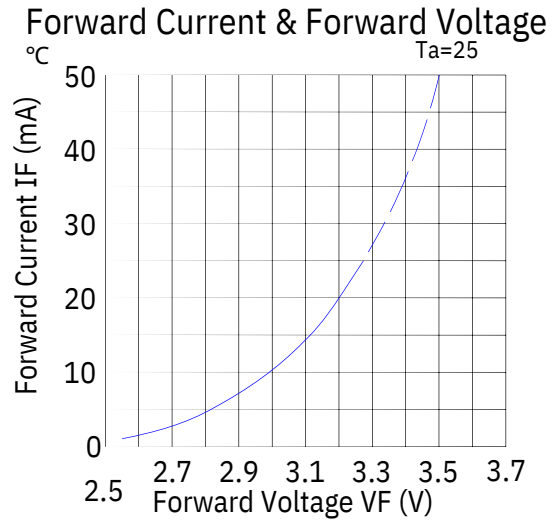
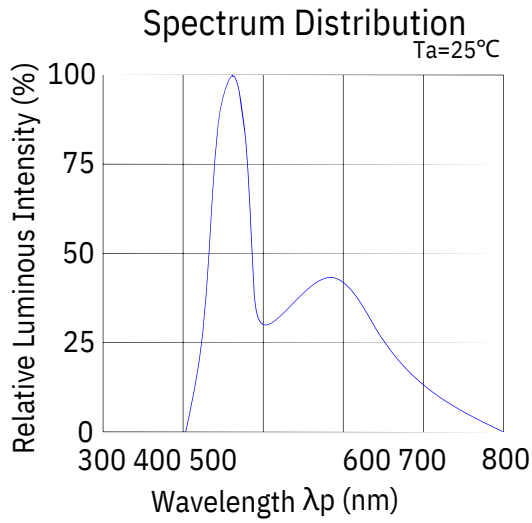
### Electrical Optical Characteristics at Ta=25°C

Parameters	Symbol	Min.	Typ.	Max.	Unit	Test Condition
Luminous Intensity (Note 1) *	IV	15.0	30.0	---	mcd	IF=20mA
Luminous Intensity Matching Ratio (Segment To Segment)	Iv-m	---	---	2:1		IF=10mA
Chromaticity Coordinates (Note 2)	X	---	0.28	---		IF=20mA
	Y	---	0.29	---		
Forward Voltage	VF	---	3.2	4.0	V	IF=20mA
Reverse Current	IR	---	---	50	µA	VR=5V

**Notes:**

1. Luminous Intensity Measurement allowance is ± 10%.
2. It use many parameters that correspond to the CIE 1931 2°. X, Y, and Z are CIE 1931 2° values of Red, Green and Blue content of the measurement.

Typical Electrical / Optical Characteristics Curves  
 (25°C Ambient Temperature Unless Otherwise Noted)



Please read the following notes before using the datasheets:

### 1. Over-current-proof

Customer must apply resistors for protection, otherwise slight voltage shift will cause big current change (Burn out will happen).

### 2. Storage

2.1 If the package contains a moisture proof bag inside, please don't open the package before using.

2.2 Before opening the package, the LEDs should be kept at 30°C or less and 80%RH or less.

2.3 The LEDs should be used within a year.

2.4 After opening the package, the LEDs should be kept at 30°C or less and 60%RH or less.

### 3. Soldering Iron

Each terminal is to go to the tip of soldering iron temperature less than 260°C for 5 seconds within once in less than the soldering iron capacity 25W. Leave two seconds and more intervals, and do soldering of each terminal. Be careful because the damage of the product is often started at the time of the hand solder.

### 4. Soldering

When soldering, for Lamp without stopper type and must be leave a minimum of 3mm clearance from the base of the lens to the soldering point.

To avoided the Epoxy climb up on lead frame and was impact to non-soldering problem, dipping the lens into the solder must be avoided.

Do not apply any external stress to the lead frame during soldering while the LED is at high temperature.

Recommended soldering conditions:

Soldering Iron	Wave Soldering		
Temperature	300°C Max. Pre-heat 100°C Max.		
Soldering Time	3sec. Max. Pre-heat Time 60sec. Max. (onetime only)		
Solder	Wave 260°C Max.		
Soldering Time	5sec. Max.		

Note: Excessive soldering temperature and / or time might result in deformation of the LED lens or catastrophic failure of the LED.

### 5. Repairing

Repair should not be done after the LEDs have been soldered. When repairing is unavoidable, a double-head soldering iron should be used. It should be confirmed beforehand whether the characteristics of the LEDs will or will not be damaged by repairing.

### 6. Caution in ESD

Static Electricity and surge damages the LED. It is recommended to use a wrist band or anti-electrostatic glove when handling the LED. All devices equipment and machinery must be properly grounded.