

43mm (1.7") Direction Indicator Display
Technical Data Sheet

Part No.: KWL-18022SB

Features:

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

Descriptions:

- ◇ The KWL-18022 series is 43mm(1.7") direction indicator display, designed for viewing distances up to 7 meters.
- ◇ These displays provide excellent reliability in bright ambient light.
- ◇ These devices are made with white segments and black surface.

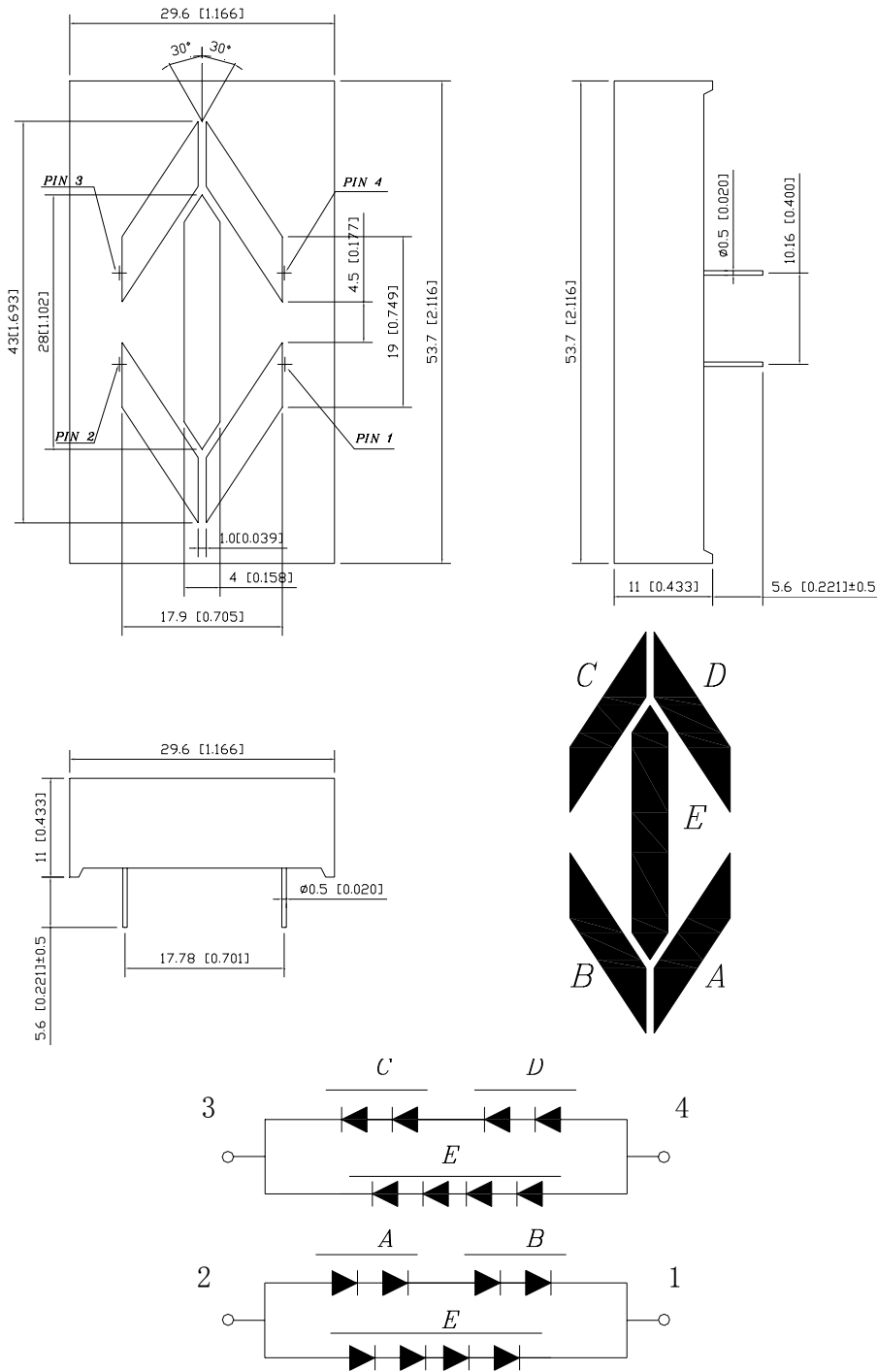
Applications:

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

Device Selection Guide:

Part No.	Chip Material	Face Color	Source Color
KWL-18022SB	GaAlAs	Black	Super Bright Red

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.

Absolute Maximum Ratings at Ta=25°C

Parameters/ Per LED Chip	Symbol	Max.	Unit
Power Dissipation	PD	480	mW
Peak Forward Current (1/10 Duty Cycle, 0.1ms Pulse Width)	IFP	100	mA
Forward Current	IF	25	mA
Derating Linear From 50°C		0.4	mA/°C
Reverse Voltage	VR	5	V
Operating Temperature Range	Topr	-40°C to +80°C	
Storage Temperature Range	Tstg	-40°C to +100°C	
Soldering Temperature	Tsld	260°C for 5 Seconds	

Electrical Optical Characteristics at Ta=25°C

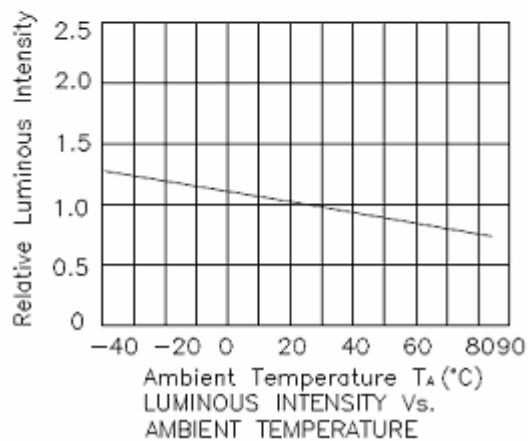
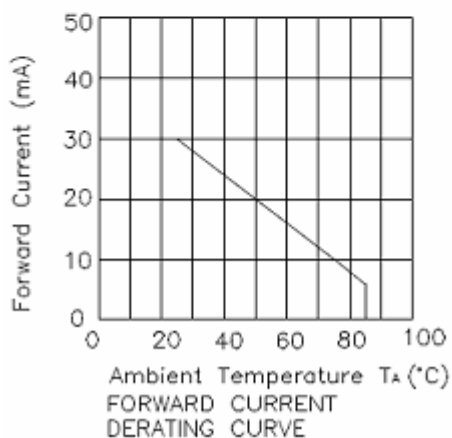
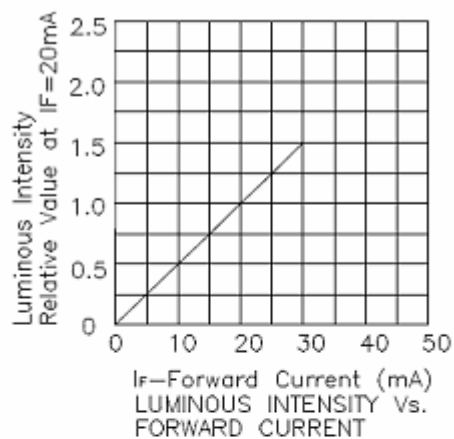
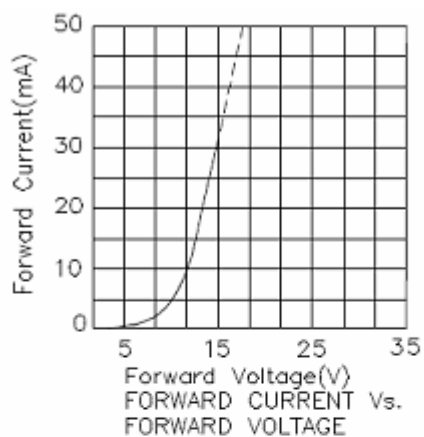
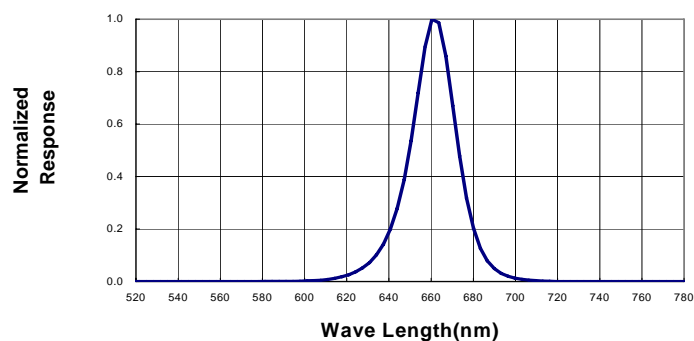
Parameters	Symbol	Min.	Typ.	Max.	Unit	Test Condition
Forward Voltage	V _F	---	14.4	19.2	V	IF=20mA
Reverse Current	I _R	---	---	10	μA	V _R =5V
Peak Emission Wavelength	λ _p	---	660	---	nm	IF=20mA
Dominant Wavelength	λ _d	---	640	---	nm	IF=20mA
Spectral Line Half-Width	Δλ	---	24	---	nm	IF=20mA
Luminous Intensity (Note 1)*	IV	2.0	4.0	---	mcd	IF=20mA

Notes:

- Luminous Intensity Measurement allowance is ± 10%.

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

Spectral Radiance (Peak @ 660nm)



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 Do not open moisture proof bag before the products are ready to use.

2.2 Before opening the package, the LEDs should be kept at 30°C or less and 90%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 70%RH or less.

3. Soldering Condition

3.1 Pb-free solder temperature profile.

3.2 Reflow soldering should not be done more than two times.

4. 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.

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.