

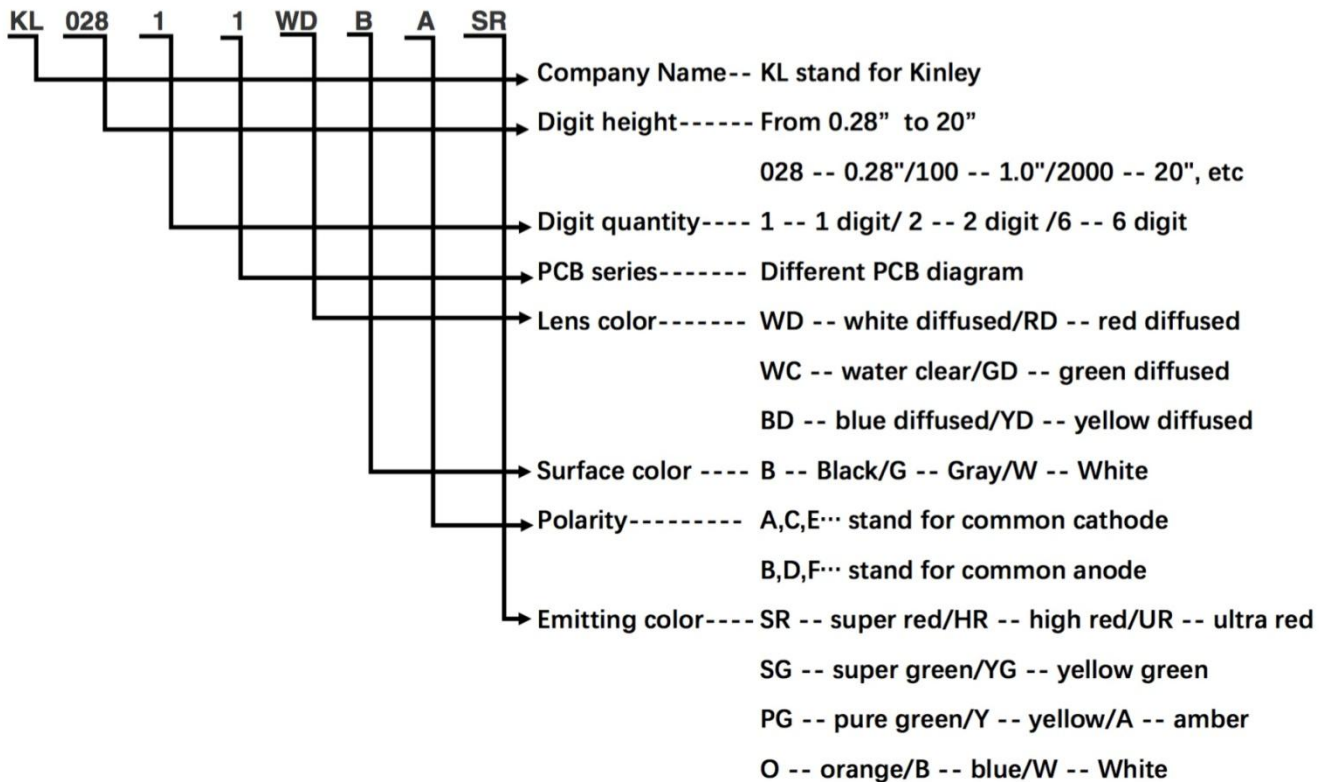
Product Data Sheet

- ✧ KL03913WDBBW-SMD
- ✧ Digit height: 0.39 inch (10.00mm)
- ✧ Digit number: 1 digit
- ✧ Emitting color: White
- ✧ Surface color: Gray
- ✧ Polarity: common anode

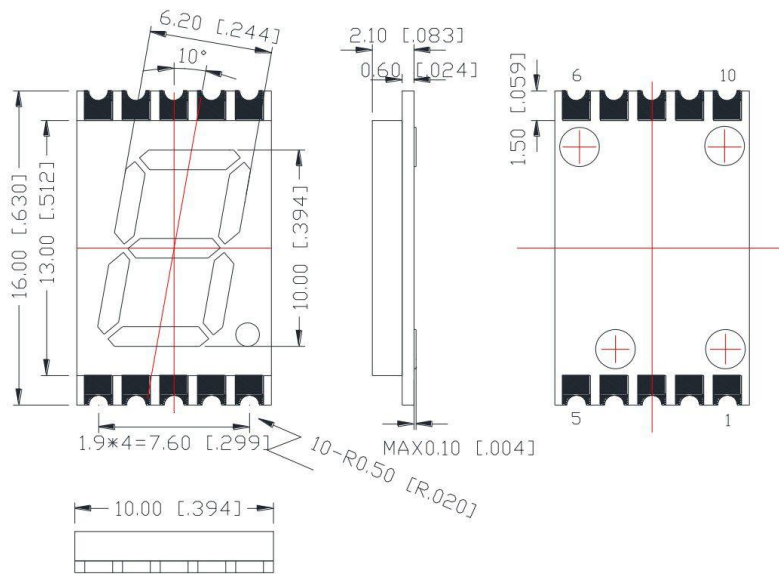


Selection Guide

Part No.	Emitting color	Color-Temperature	Lens color	Intensity	Polarity	Surface color
KL03913WDBAW-SMD	Super red	4000-7000nm	White diffused	100-150mcd	Common cathode	Black
KL03913WDBBW-SMD	Super red	4000-7000nm	White diffused	100-150mcd	Common anode	Black
KL03913WDGAW-SMD	Super red	4000-7000nm	White diffused	100-150mcd	Common cathode	Gray
KL03913WDGBW-SMD	Super red	4000-7000nm	White diffused	100-150mcd	Common anode	Gray

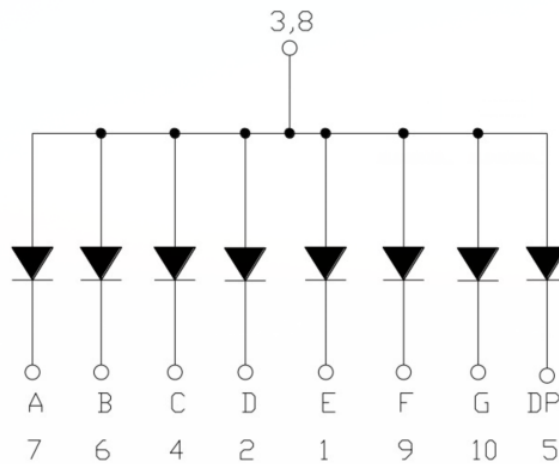
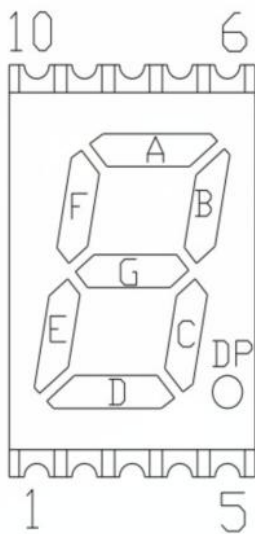


Dimension and Diagram



备注：未标注公差尺寸均为±0.25mm

NOTES: All dimensions are in millimeters (inches) tolerance are ±0.25mm(0.010) unless otherwise noted



Notes:

1. Dimension in millimeter [inch], tolerance is ± 0.25 [.010] and angle is $\pm 1^\circ$ unless otherwise noted.
2. Bending \leq Length*1%.
3. The specifications characteristics and technical data described in the datasheet are subject to change without prior notice.

Absolute Maximum Ratings at TA=25 °C

Parameter	Symbol	Test Condition	Value		Unit
			Min	Max	
Reverse Voltage	VR	IR=30	5	—	V
Forward Current	IF	—	—	15	mA
Power Dissipation	Pd	—	—	100	mW
Pulse Current	Ipeak	Duty=0.1mS,1KHz	—	150	mA
Operating Temperature	T opr	—	-40	+85	°C
Storage Temperature	T str	—	-40	+85	°C

Electro-Optical Characteristics (Ta=25 °C)

Parameter		Symbol	Min.	Typ.	Max.	Units	Condition
Forward Voltage		V _F	--	3.1	3.3	V	I _F =15mA
Reverse Current		I _R	--	--	10	μA	V _R =5V
Luminous Intensity	Per segment	I _V	100	130	150	mcd	I _F =10mA
	Per decimal point		100	130	150		
Peak Wavelength		λ _p	--	/	--	nm	I _F =10mA
Dominant Wavelength		λ _d	--		--	nm	I _F =10mA
Spectrum Radiation Bandwidth		Δλ	--	20	--	nm	I _F =10mA

Note:

1.Luminous Intensity is based on the Kinley standards.

2.Pay attention about Intensity is only for one chip

Reliability test items and conditions:

The reliability of products shall be satisfied with items listed below. Confidence level:90% LTPD:10%

NO	Item	Test Conditions	Test Hours/Cycle	Sample Size	Failure Judgment Criteria	Ac/Re
1	Reflow Soldering	TEMP:230 °C±5 °C Min. 5 SEC	6 Min	22 PCS	$Iv \leq Ivt * 0.5$ or $VF \geq U$ or $VF \leq L$	0/1
2	Temperature Cycle	H:+100°C 15min ∫ 5min L:-40 °C 15min	300 Cycles	22 PCS		0/1
3	Thermal Shock	H:+100°C 5min ∫ 10 sec L:-10 °C 5min	300 Cycles	22 PCS		0/1
4	High Temperature Storage	TEMP:100 °C	1000 HRS	22PCS		0/1
5	Low Temperature Storage	TEMP:-40 °C	1000 HRS	22 PCS		0/1
6	DC Operating Life	TEMP:25 °C If=10mA	1000 HRS	22 PCS		0/1
7	High Temperature / High Humidity	85 °C / 85% RH	1000 HRS	22 PCS		0/1

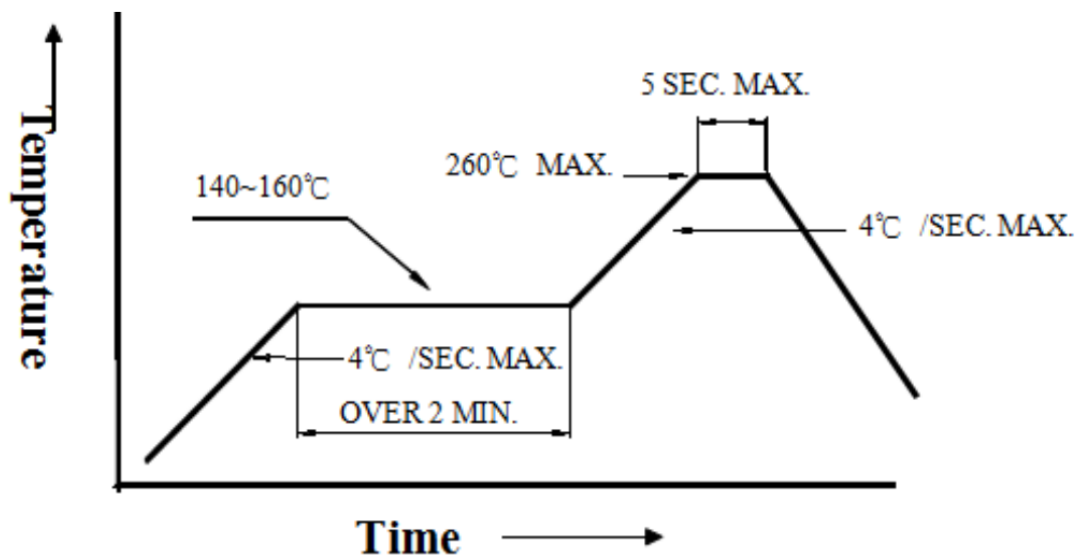
Note:

Ivt: The test Iv value of the chip before the reliability test

Iv: The test value of the chip that has completed the reliability test

U: Upper Specification Limit L: Lower Specification Limit

Reflow Temp. / Time :



■ Soldering Iron :

Basic spec is ≤ 5 sec when 260°C. If temperature is higher, time should be shorter (+10°C → -1sec).

Power dissipation of iron should be smaller than 15 W, and temperature should be controllable. Surface temperature of the device should be under 260 °C.

■ Rework :

1. Customer must finish rework within 5 sec under 260 °C.
2. The head of iron can not touch copper foil.