

# **SPECIFICATIONS FOR LED DISPLAYS**

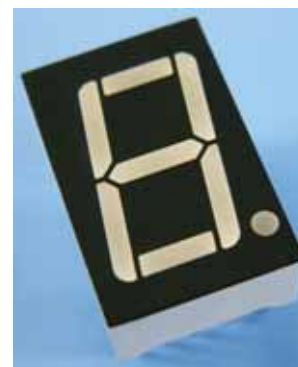
**14.2mm(0.56") Seven Segments Single Digit**

**LSD056 -10 Series**

**WENRUN OPTOELECTRONIC**

**Features:**

- High luminous intensity output.
- High efficiency, low power consumption.
- Extremely low current.
- Luminous evenly distributed on each segment.
- Low development cost.

**LSD056A/B -10****Descriptions:**

- Industrial standard size.
- These display provide excellent reliability in bright ambient light.
- These devices are made with white segments and black surface.

**Applications:**

- Audio equipment or Instrument panels.
- General use for digital indicators.
- Multimedia product.

**Selection Guide:**

Part No.		Chip		Lens Color
Anode	Cathode	Material	Emitting Color	
LSD056BUE-10	LSD056AUE-10	AlGaInP	High Super Red	White Diffused
LSD056BUY-10	LSD056AUY-10	AlGaInP	High Super Yellow	
LSD056BAM-10	LSD056AAM-10	AlGaInP	High Super Amber	

**Absolute Maximum Rating ( Ta=25 )**

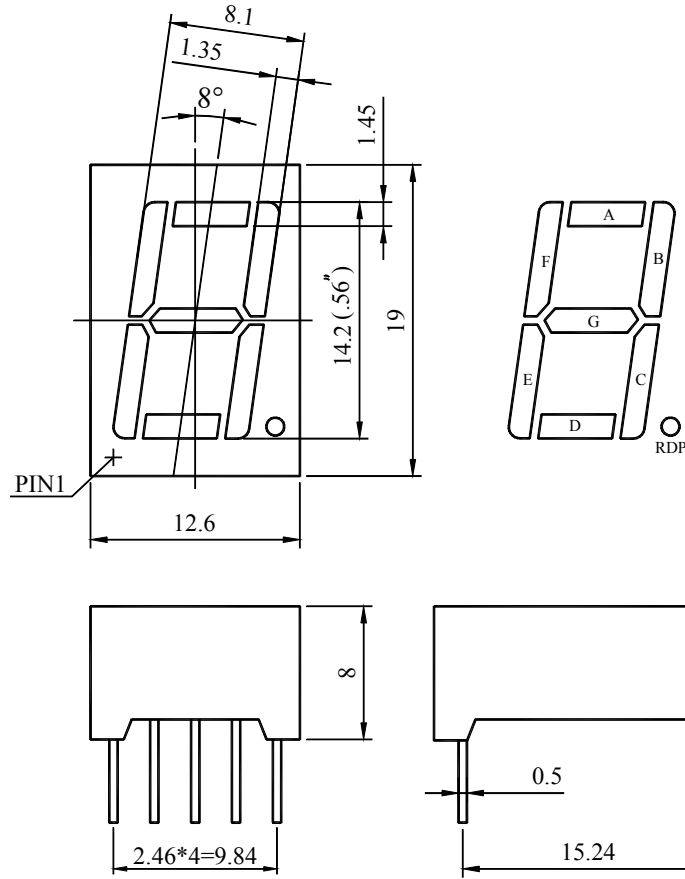
Parameter	Symbol	High Super		High Super		High Super		Unit	
		Red		Amber		Yellow			
Power Dissipation/Segment	P <sub>d</sub>	60		60		60		mW	
Peak Forward Current /Segment (Duty 1/10@ 1KHz)	I <sub>FP</sub>	80		80		80		mA	
Continuous Forward Current /Segment	I <sub>F</sub>	25		25		25		mA	
Recommend use current /Segment	I <sub>F</sub>	5~10		5~10		5~10		mA	
Reverse Voltage /Segment	V <sub>R</sub>	5		5		5		V	
Operating Temperature Range	Topr	-25~ +75							
Storage Temperature Range	Tstg	-30 ~ +85							
Solder Temperature	Tsol	260 ± 5							

- Notes :** 1、 This is the limit current . It is not allowed to use when the product work continuously.  
 2、 It is recommended that the product is driven by TTL,CMOS.  
 3、 Soldering time 5 seconds.

**Electrical Optical Characteristics ( Ta=25 )**

Parameter	Symbol	High Super		High Super		High Super		Unit	Test Condition
		Red		Amber		Yellow			
		Typ.	Max.	Typ.	Max.	Typ.	Max.		
Luminous Intensity /Segment	I <sub>V</sub>	75	--	75	--	75	--	mcd	I <sub>F</sub> =10mA
Forward Voltage /Segment	V <sub>F</sub>	2.0	2.5	2.0	2.5	2.0	2.5	V	I <sub>F</sub> =20mA
Reverse Current /Segment	I <sub>R</sub>	--	50	--	50	--	50	uA	V <sub>R</sub> =5V
Dominant Wavelength	d	625	--	605	--	590	--	nm	I <sub>F</sub> =20mA
Spectral Line Half Width		30	--	30	--	30	--	nm	I <sub>F</sub> =20mA

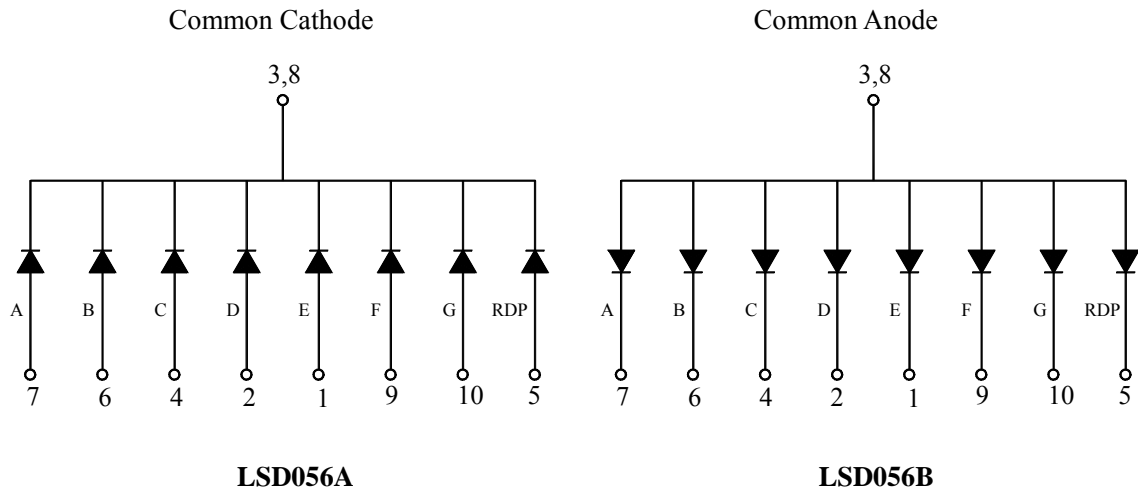
**Package Dimensions:**



**NOTES :**

- All dimensions are in millimetres (mm), Tolerance is  $\pm 0.25\text{mm}$  unless otherwise noted.
- Specifications are subject to change without notice.

**Internal Circuit:**



### Reliability Test Items and Conditions

NO	Test Item	Test Conditions	Duration	Sample	Ac/Re
1	Temperature Cycle	-30 ~ 25 ~ 85 ~ 25 30min 5min 30min 5min	50cycles	100	0/1
2	High Temp. Storage	Ta=85	1000hours	100	0/1
3	Temp.& Humidity Test	Ta=85 RH=85%	1000hours	100	0/1
4	Low Temp. Storage	Ta=-30	1000hours	100	0/1
5	Operating Life Test	Ta=25 ± 5 DC IF=15mA	1000hours	100	0/1
6	Solder Heat	Tsol=260 ± 5 , 10s	1times	20	0/1

### Typical Electro-Optical Characteristics Curves

