

## LD8012A/B Series - 0.80 inch Single Digit 7 Segment LED Display



**ATTENTION**  
OBSERVE PRECAUTIONS  
FOR HANDLING  
ELECTROSTATIC  
DISCHARGE  
SENSITIVE  
DEVICES



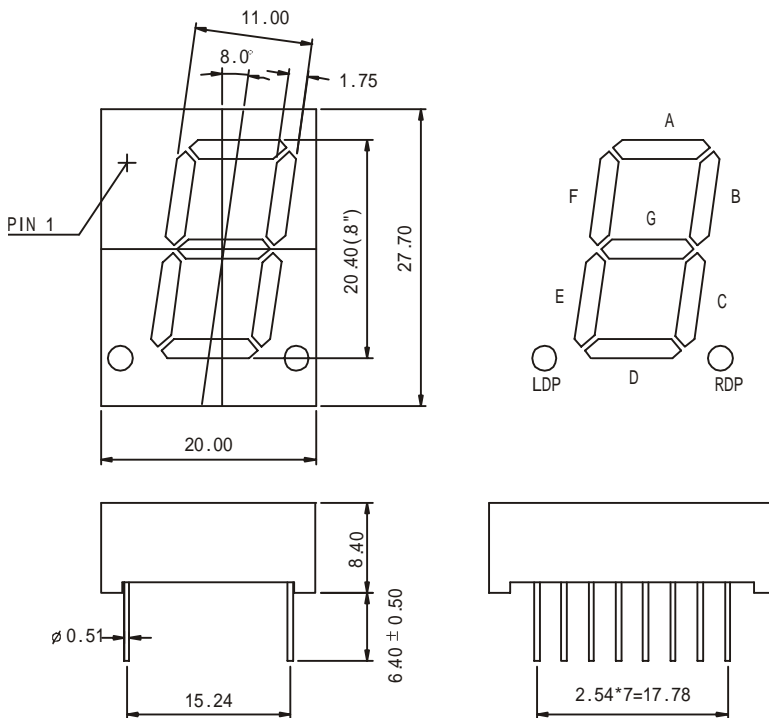
### Features

- 20.40 mm (0.80 inch) digit high
- Excellent digit appearance
- Wide viewing angle
- Range of emitted colors
- I.C. compatible
- Low power consumption
- White segment, black face
- RoHS compliant

### Available options

- Alternative emitting luminosity:  
Standard or high brightness version
- Alternative emitted color
- Alternative face and segment color
- Alternative font
- Both CA and CC versions are available
- Cropped terminal pins

### Package Dimensions

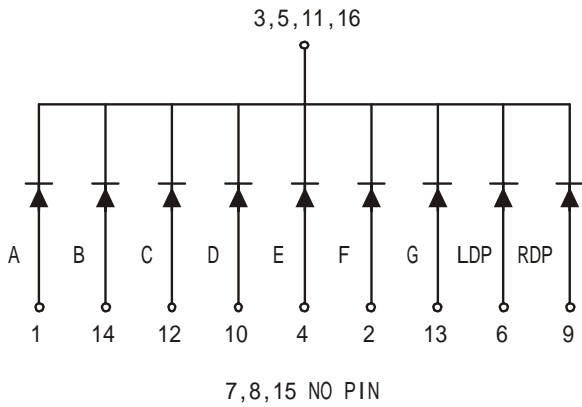


#### Notes:

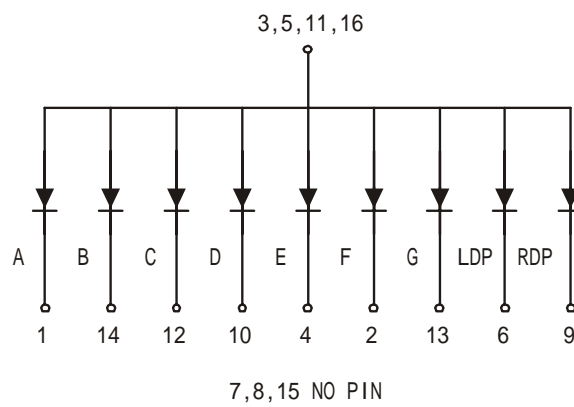
1. All dimensions are in millimeters (inches), Tolerance is  $\pm 0.25\text{mm}$  ( $0.01\text{inch}$ ) unless otherwise noted.
2. Specifications are subject to change without notice.
3. The gap between the reflector and PCB shall not exceed 0.25mm.

### Internal Circuit Diagram

**LD8012A (Common Cathode)**



**LD8012B (Common Anode)**



### Selection Guide

**Single Digit 7 Segment LED Display, Digit Height: 20.4 mm(0.80inch), External Dimensions: 20.00x27.70x8.40mm (L x W x H)**

Part No.		Chip			Iv@IF=20mA		Iv@IF=20mA	
Common Cathode	Common Anode	Material	Color	WLD	One Seg		One DP	
					Min.	Typ.	Min.	Typ.
LD8012AR	LD8012BR	GaAlAs	Super Red	640	8	10	8	10
LD8012AD	LD8012BD	GaAlAs	Hi-Red	640	18	25	18	25
LD8012AO	LD8012BO	GaAsP	Orange	625	7	9	7	9
LD8012AY	LD8012BY	GaAsP	Yellow	588	8	10	8	10
LD8012AG	LD8012BG	GaP	Green	568	7	9	7	9
LD8012AUR	LD8012BUR	AlGaInP	Ultra Red	640	30	45	30	45
LD8012AUO	LD8012BUO	AlGaInP	Ultra Orange	625	45	60	45	60
LD8012AUA	LD8012BUA	AlGaInP	Ultra Amber	605	30	45	30	45
LD8012AUY	LD8012BUY	AlGaInP	Ultra Yellow	595	30	45	30	45
LD8012AUG	LD8012BUG	AlGaInP	Ultra Green	573	30	45	30	45
LD8012APG	LD8012BPG	InGaN	Pure Green	525	120	300	120	300
LD8012AUB	LD8012BUB	InGaN	Ultra Blue	470	30	45	30	45
LD8012AUW	LD8012BUW	InGaN	Ultra White	\	100	120	100	120
Unit:	\	\	\	nm	mcd	mcd	mcd	mcd

## Electrical Characteristics & Absolute Maximum Ratings

Parameter		Electrical optical Characteristics <sup>[1]</sup>			Absolute Maximum Ratings <sup>[1]</sup>		
Emitted color		Forward Voltage @ IF=20mA		Reverse Current VR=5V	Power Dissipation	DC Forward Current	Peak Forward Current <sup>[2]</sup>
		Typ.	Max.				
Super Red	Per Seg.	1.8	2.2	30	60	25	100
	Per DP	1.8	2.2	30	60	25	100
Hi-Red	Per Seg.	1.8	2.2	30	60	25	100
	Per DP	1.8	2.2	30	60	25	100
Orange	Per Seg.	2.1	2.5	30	80	30	100
	Per DP	2.1	2.5	30	80	30	100
Yellow	Per Seg.	2.1	2.5	30	80	30	100
	Per DP	2.1	2.5	30	80	30	100
Green	Per Seg.	2.2	2.5	30	80	30	100
	Per DP	2.2	2.5	30	80	30	100
Ultra Red	Per Seg.	1.9	2.6	30	60	30	100
	Per DP	1.9	2.6	30	60	30	100
Ultra Orange	Per Seg.	2	2.6	30	65	30	100
	Per DP	2	2.6	30	65	30	100
Ultra Amber	Per Seg.	2	2.6	30	65	30	100
	Per DP	2	2.6	30	65	30	100
Ultra Yellow	Per Seg.	2	2.6	30	65	30	100
	Per DP	2	2.6	30	65	30	100
Ultra Green	Per Seg.	2.1	2.6	30	75	30	100
	Per DP	2.1	2.6	30	75	30	100
Pure Green	Per Seg.	3.5	4	30	110	30	100
	Per DP	3.5	4	30	110	30	100
Ultra Blue	Per Seg.	3.5	4	30	120	30	100
	Per DP	3.5	4	30	120	30	100
Ultra White	Per Seg.	3.5	4	30	120	30	100
	Per DP	3.5	4	30	120	30	100
Unit:	\	V	V	uA	mW	mA	mA

Notes:

1. At Ta = 25 °C.

2. Peak forward current at 1/10 Duty Cycle, 0.1ms Pulse.