

## LD8031A/B Series - 0.80 inch Three Digit 7 Segment LED Display



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



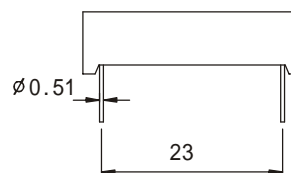
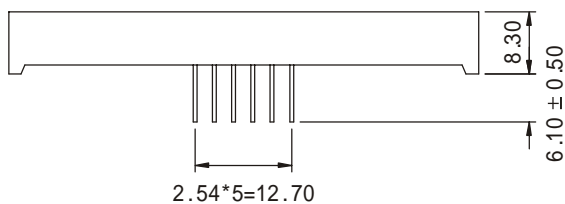
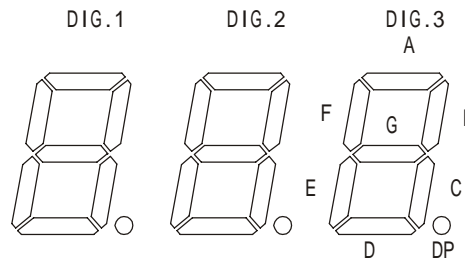
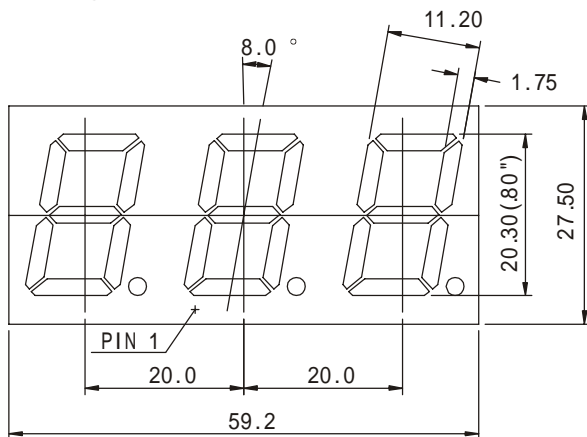
### Features

- 20.30 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

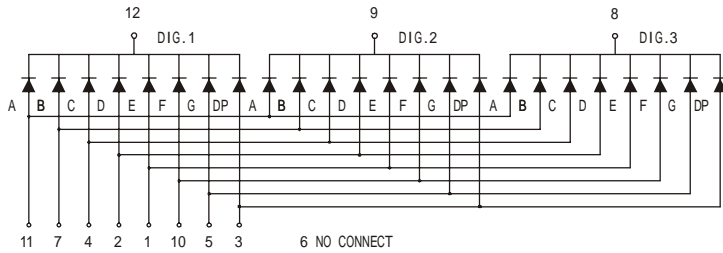


#### Notes:

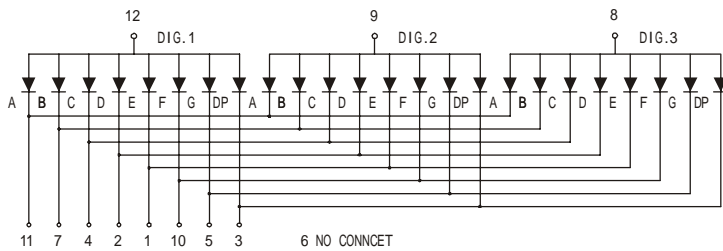
1. All dimensions are in millimeters (inches), Tolerance is  $\pm 0.25\text{mm}$  (0.01inch) unless otherwise noted.
2. Specifications are subject to change without notice.
3. The gap between the reflector and PCB shall not exceed 0.25mm.

### Internal Circuit Diagram

#### LD8031A (Common Cathode)



#### LD8031B (Common Anode)



### Selection Guide

**Three Digit 7 Segment LED Display, Digit Height:20.30mm(0.80 inch), External Dimensions: 59.2 0x27.50x8.30mm (L x W x H )**

Part No.		Chip			$I_V@I_F=20mA$		$I_V@I_F=20mA$	
Common Cathode	Common Anode	Material	Color	WLD	One Seg		One DP	
					Min.	Typ.	Min.	Typ.
LD8031AR	LD8031BR	GaAlAs	Super Red	640	8	10	8	10
LD8031AD	LD8031BD	GaAlAs	Hi-Red	640	18	25	18	25
LD8031AO	LD8031BO	GaAsP	Orange	625	7	9	7	9
LD8031AY	LD8031BY	GaAsP	Yellow	588	8	10	8	10
LD8031AG	LD8031BG	GaP	Green	568	7	9	7	9
LD8031AUR	LD8031BUR	AlGaInP	Ultra Red	640	30	45	30	45
LD8031AUO	LD8031BUO	AlGaInP	Ultra Orange	625	45	60	45	60
LD8031AUA	LD8031BUA	AlGaInP	Ultra Amber	605	30	45	30	45
LD8031AUY	LD8031BUY	AlGaInP	Ultra Yellow	595	30	45	30	45
LD8031AUG	LD8031BUG	AlGaInP	Ultra Green	573	30	45	30	45
LD8031APG	LD8031BPG	InGaN	Pure Green	525	120	300	120	300
LD8031AUB	LD8031BUB	InGaN	Ultra Blue	470	30	45	30	45
LD8031AUW	LD8031BUW	SMD	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>		
		Forward Voltage @ IF=20mA		Reverse Current VR=5V	Power Dissipation	DC Forward Current	Peak Forward Current <sup>[2]</sup>
Emitted color		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.