# LightKey

### LD5641A/B Series - 0.56 inch Four Digit 7 Segment LED Display



ATTENTION
OBSERVE PRECAUTIONS
FOR HANDLING
ELECTROSTATIC
DISCHARGE
SENSITIVE
DEVICES



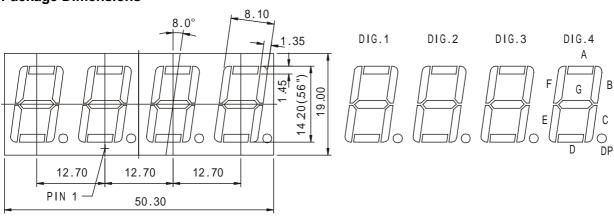
### **Features**

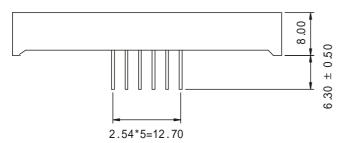
- 14.20 mm (0.56 inch) digit high
- Excellent digit appearance
- Wide viewing angle
- > Range of emitted colors
- I.C. compatible
- Low power consumption
- White segment, black face
- RoHS compliant

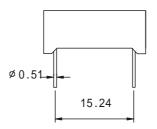
## **Available options**

- 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:

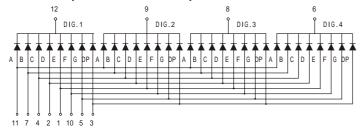
- 1. All dimensions are in millimeters (inches), Tolerance is ± 0.25mm(0.01inch)unless other wise noted.
- 2. Specifications are subject to change without notice.
- 3. The gap between the reflector and PCB shall not exceed 0.25mm.

SPEC NO: DS10121718 REV: A.4 CHECKED: Emily Zhou APPROVED: M.H. Lin PAGE: 1/3 HTTP://WWW.DISPLAY-LEDS.COM TEL: 0086-574-86322282 DATE: Jul/20/2011

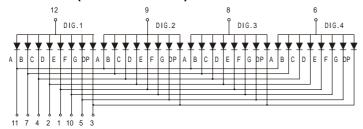
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### **Internal Circuit Diagram**

## LD5641A (Common Cathode)



### LD5641B (Common Anode)



**Selection Guide** 

Four Digits 7 Segment LED Display, Digit Height: 14.20mm(0.56inch), External Dimensions: 50.30x19.00x8.00mm (L x W x H)

Part No.			lv@IF=20mA		lv@IF=20mA			
Common	Common	Material	Color	WLD	One Seg		One DP	
Cathode	Anode	Waterial	Coloi	VVLD	Min.	Тур.	Min.	Тур.
LD5641AR	LD5641BR	GaAlAs	Super Red	640	8	10	8	10
LD5641AD	LD5641BD	GaAlAs	Hi-Red	640	18	25	18	25
LD5641AO	LD5641BO	GaAsP	Orange	625	7	9	7	9
LD5641AY	LD5641BY	GaAsP	Yellow	588	8	10	8	10
LD5641AG	LD5641BG	GaP	Green	568	7	9	7	9
LD5641AUR	LD5641BUR	AlGaInP	Ultra Red	640	30	45	30	45
LD5641AUO	LD5641BUO	AlGaInP	Ultra Orange	625	45	60	45	60
LD5641AUA	LD5641BUA	AlGaInP	Ultra Amber	605	30	45	30	45
LD5641AUY	LD5641BUY	AlGaInP	Ultra Yellow	595	30	45	30	45
LD5641AUG	LD5641BUG	AlGaInP	Ultra Green	573	30	45	30	45
LD5641APG	LD5641BPG	InGaN	Pure Green	525	120	300	120	300
LD5641AUB	LD5641BUB	InGaN	Ultra Blue	470	30	45	30	45
LD5641AUW	LD5641BUW	InGaN	Ultra White	\	100	120	100	120
Unit:	\	\	\	nm	mcd	mcd	mcd	mcd



# **Electrical Characteristics & Absolute Maximum Ratings**

Parameter Emitted color		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>	
		Тур.	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:

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<sup>1.</sup> At Ta = 25 °C.

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