

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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## **Property of Lite-On Only**

#### **FEATURES**

- \*LARGE, BRIGHT, UNIFORM LIGHT EMITTING AREAS.
- \*LOW POWER REQUIREMENT.
- \*EXCELLENT ON-OFF CONTRAST.
- \*CAN BE USED WITH PANEL AND LEGEND MOUNT.
- \*WIDE VIEWING ANGLE.
- \* SOLID STATE RELIABILITY.
- \*CATEGORIZED FOR LIGHT OUTPUT.

#### **DESCRIPTION**

The LTL-53173Y is a rectangular light source display that is designed for a variety of applications where a large bright source of light is required. This device utilizes yellow LED chips that are made from GaAsP on a transparent GaP substrate, and has yellow bar color.

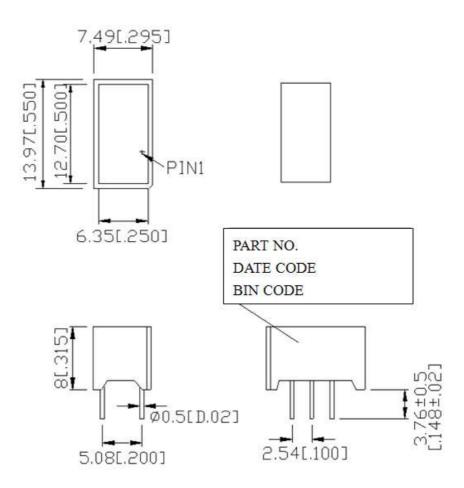
#### **DEVICE**

PART NO.	DESCRIPTION		
YELLOW	Universal		
LTL-53173Y	Rectangular Bar		

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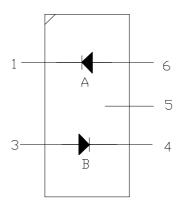
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#### **PACKAGE DIMENSIONS**



NOTES: All dimensions are in millimeters. Tolerance is  $\pm$  0.25-mm (0.01") unless otherwise noted.

#### INTERNAL CIRCUIT DIAGRAM



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#### **PIN CONNECTION**

No.	CONNECTION				
1	CATHODE A				
2	NO PIN				
3	ANODE B				
4	CATHODE B				
5	NO CONNECTION				
6	ANODE A				

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### ABSOLUTE MAXIMUM RATING AT T<sub>A</sub>=25°C

PARAMETER	MAXIMUM RATING	UNIT			
Power Dissipation Per Bar	60	mW			
Peak Forward Current Per Bar (1/10 Duty Cycle, 0.1ms Pulse Width)	80	mA			
Continuous Forward Current Per Bar	20	mA			
Derating Linear From 25 <sup>o</sup> C Per Bar	0.27	mA/ <sup>0</sup> C			
Operating Temperature Range	$-35^{\circ}$ C to $+85^{\circ}$ C				
Storage Temperature Range	$-35^{\circ}$ C to $+85^{\circ}$ C				
Solder Temperature 1/16 inch Below Seating Plane for 3 Seconds at 260 <sup>o</sup> C					

### ELECTRICAL / OPTICAL CHARACTERISTICS AT T<sub>A</sub>=25°C

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITION
Average Luminous Intensity	Iv	2300	4200		μcd	I <sub>F</sub> =10mA
Peak Emission Wavelength	λр		585		nm	I <sub>F</sub> =20mA
Spectral Line Half-Width	Δλ		35		nm	I <sub>F</sub> =20mA
Dominant Wavelength	λd		588		nm	I <sub>F</sub> =20mA
Forward Voltage. Per Bar	VF		2.1	2.6	V	I <sub>F</sub> =20mA
Reverse Current, Per Bar	Ir			100	μΑ	V <sub>R</sub> =5V

Note: 1. Luminous intensity is measured with a light sensor and filter combination that approximates the CIE (Commision Internationale De L'Eclairage) eye-response curve.

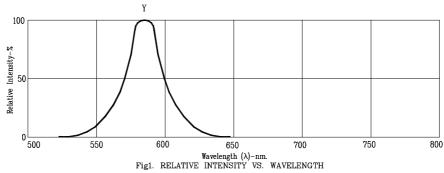
2. Reverse voltage is only for IR test. It can not continue to operate at this situation.

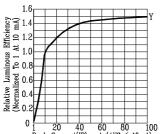
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#### TYPICAL ELECTRICAL / OPTICAL CHARACTERISTIC CURVES

(25°C Ambient Temperature Unless Otherwise Noted)





\*1 20 40 60 80 100
Peak Current(IP)-mA (AVG \( \) 10mA)
RELATIVE LUMINOUS EFFICIENCY
(LUMINOUS INTENSITY PER UNIT
CURRENT) VS. PEAK CURRENT
(REFRESH RATE 1KHz)

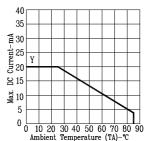
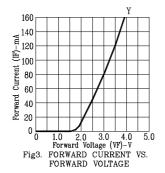
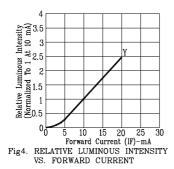


Fig5. MAX. ALLOWABLE DC CURRENT VS. AMBIENT TEMPERATURE.





1000 500 200 5 10 20 Duty Cycle % 100 Fig6. MAX PEAK CURRENT VS.
DUTY CYCLE % (REFRESH RATE 1KHz)

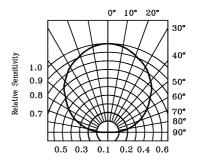


Fig.7 Sensitivity Diagram

NOTE : Y=YELLOW

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