SPECIFICATIONS

FOR TOPLIGHT 0.56 INCH (14.2mm) DUAL DIGIT

MODEL: **T O P L I G H T**
CA-5261BH

TOPLIGHT

SHANGHAI TOPLIGHT TECHNOLOGY CO., LTD.

www.ledtoplight.com.cn

PRODUCT INTRODUCTION

FEATURES

※ 0.56 inch (14.2mm) digit height.
※ Low power requirement, solid state reliability.
※ Multicolor available, stackable horizontally.
※ Categorized for luminous intensity.
※ Easy mounting on P.C. boards.
※ Remain within RoHS compliant version.

DESCRIPTION

※ The TOPLIGHT-CA-5261BH is a 0.56 inch (14.2mm) digit height dual digit numeric display.
※ This device is made with white segments and black surface.

APPLICATION

※ Digital readout display
※ Instrument pancls
※ Elevator
※ Audio epuipment

PART NO.	SIZE	CHIP EMITTED COLOR	FACE COLOR
TOPLIGHT-CA-5261BH	**0.56 inch (14.2mm) digit height**	**Red**	**Black**

TECHNICAL DATA SHEET

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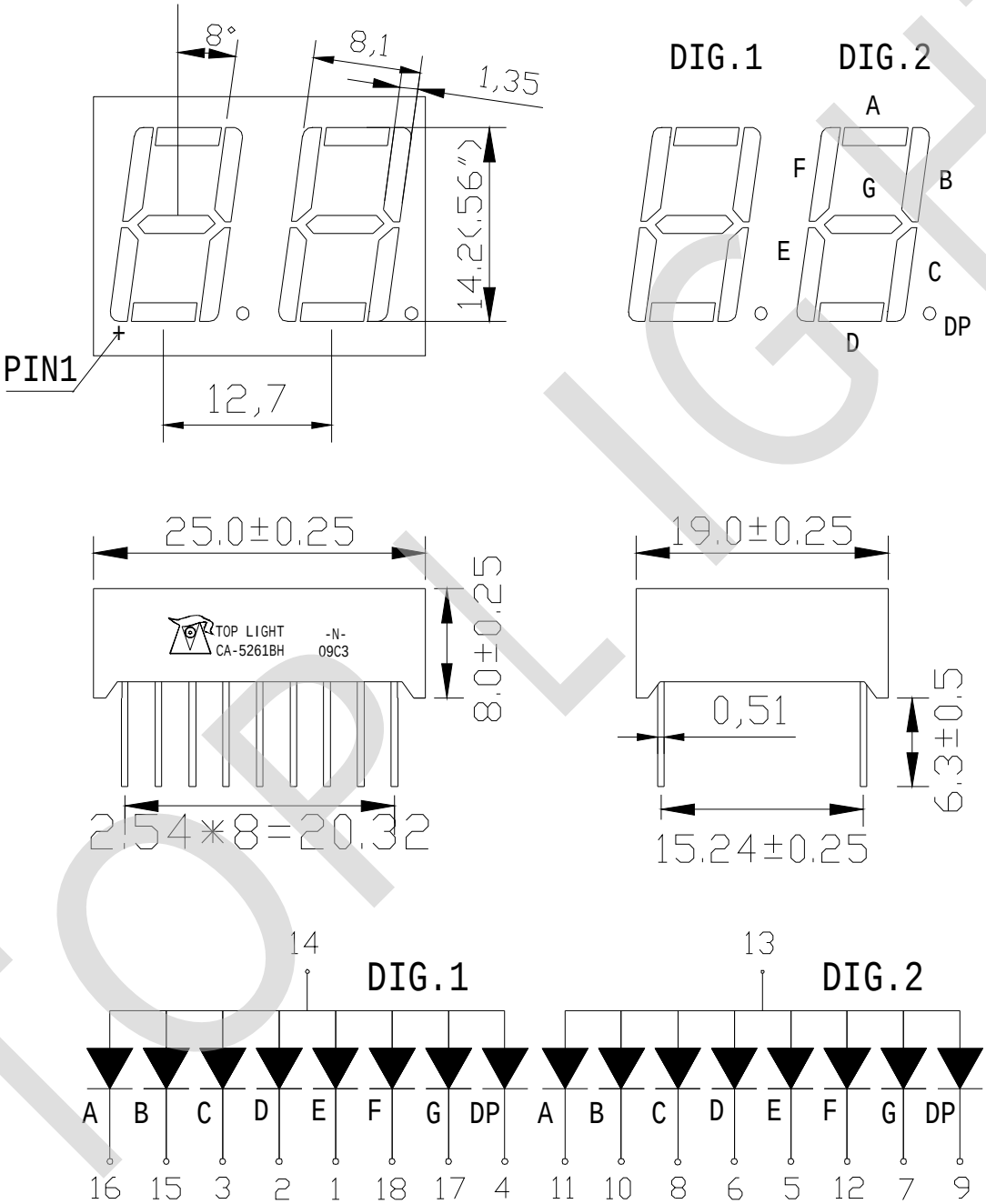
PACKAGE DIMENSIONS



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ELECTRICAL/OPTICAL CHARACTERISTIC (1)

ABSOLUTE MAXIMUM RATINGS (Ta=25° C)

PARAMETER PER SEGMENT	SYMBOL	MAX	UNIT
Reverse Voltage	V_R	5	V/seg
Forward Current	I_F	30	mA/seg
Peak Forward Current (1/10 Duty Cycle)	I_{PEAK}	120	mA/seg
Power Dissipation	P_D	80	mW/seg
Operating Temperature Range	T_A	- 35 ~ + 85	℃
Storage Temperature Range	T_{STG}	- 35 ~ + 85	℃
Solder Temperature 1/16 inch below seating plane for 3 seconds MAX 260℃			

ELECTRICAL-OPTICAL CHARACTERISTICS （Ta=25° C）

PARAMETER	SYMBOL		MIN.	TYP.	MAX.	UNIT	TEST CONDITIONS
Luminous Intensity	I_V	M	6145	7066	7987	ucd	I_F=10mA
		N	7988	9185	10383		
		P	10384	11941	13499		
Forward Voltage	V_F		1.70	1.85	2.20	V/seg	I_F=20mA
Peak Emission Wavelength	λ_p		-	640	-	nm	I_F=20mA
Spectral Line Half-Width	$\Delta\lambda$		-	20	-	nm	I_F=20mA
Reverse Current	I_R		-	-	20	uA	V_R=5v

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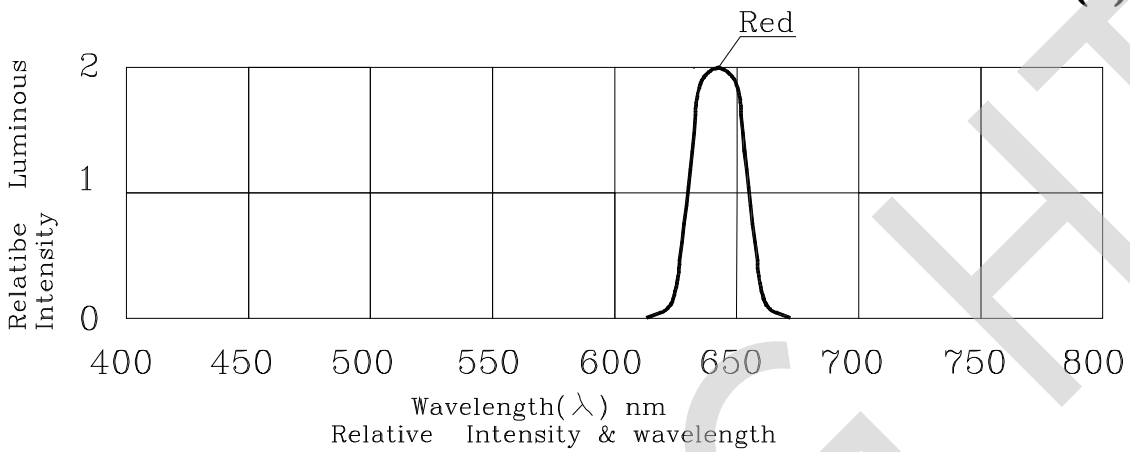
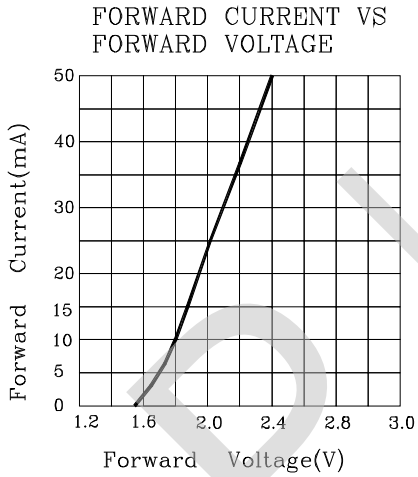
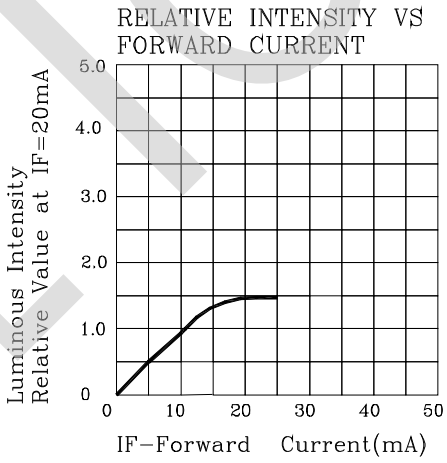
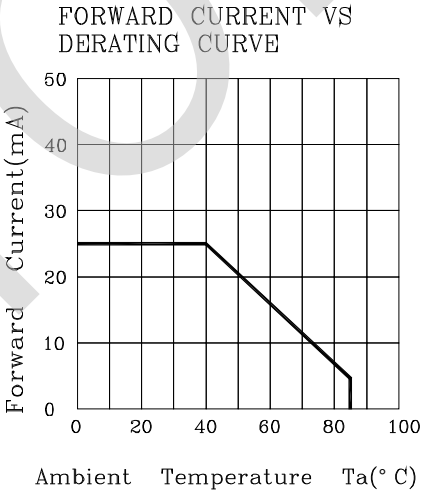
ELECTRICAL/OPTICAL CHARACTERISTIC (2)

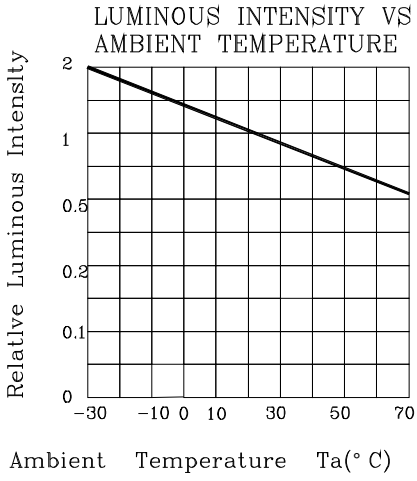


Relative Intensity & wavelength









QUALITY CONTROL AND ASSURANCE

CLASSIFICATION	TEST ITEM	DESCRIPTION AND TEST CONDITION
ENDUTRANCE TEST	OPERATION LIFE	To evaluate resistance of the device when it operated at eletrical stress Ta=under room temperature If=12mA-25mA per segment or Ip=80mA/duty=1/8,Pw=1.25mS Ip=160mA/duty=1/16,Pw=1.mS(DOT) Test time=1000HRS(-24HRS+72HRS)
	HIGH TEMPERATURE HIGH HUMIDITY STORAGE	To evaluate moisture resistance of the device when it stored for a long term at high temperature and high humidity Ta=65℃±5℃ RH=90-95% Test time=240HRS±2HRS
	HIGH TEMPERATURE HIGH HUMIDITY REVERSE BIAS	To evaluate resistance of leakage current against long term thermal,humidty,and eletrical strss Ta=65℃±5℃ RH=90-95% VR=5V Test time=500hrs(-24HRS+48HRS)
	HIGH TEMPERATURE STORAGE	To evaluate device's durability for long term storage in high temperature Ta=85℃±5℃ Test time=1000HRS(-24HRS+72HRS)
	LOW TEMPERATURE STORAGE	To evaluate device's durability for long tem storage in low temperature Ta=-35℃±5℃ Test time=1000HRS(-24HRS+72HRS)
ENVIRONMENTAL TEST	TEMPERATURE CYCLING	To evaluate resistance of devices under thermal stress,expansion and contraction Ta=85℃～25℃～-35℃ time=30min 5min 30min 5min Cycle test:10cycles
	THERMAL SHOCK	To evaluate device's structrual and mechanical resistance when suddenly exposed at serious changes Ta=85℃±5℃～-35℃±5℃ time=10min 10min Cycle test:10cycles
	SOLOER RESISTANCE	To evaluate resistance of thermal stress caused by soldering T.sol=260℃±5℃ time=10±1sec
	SOLOER ABILITY	To evaluate solderability on leads of device T.sol=230℃±5℃ time=5±1sec

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Display Soldering Conditions

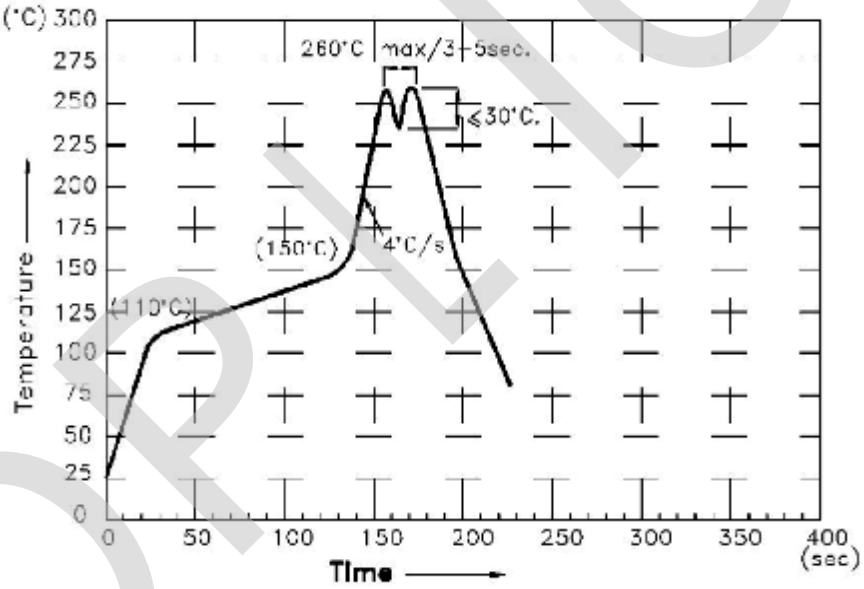
The recommended conditions for soldering are as follows. Because the component is made with epoxy resin, the units are susceptible to heat. Therefore, the preheating and soldering temperatures should be kept as low as possible to avoid damage.

1 . Manual Soldering Conditions(with 1.5mm Iron tip)

Iron Tip Temperature: 350°C Max, Time: 3s Max
Position: The iron should be situated at least 2mm away from the root of the leads.

2 . Through the Wave Soldering Conditions

Wave Soldering Profile For Lead-free Through-hole LED



3 . Soldering General Notes:

a. Toplight recommend manual soldering to be used only for repair and rework purposes. The soldering iron should not exceed 30W in power. The tip of the soldering iron should not touch the reflector case to avoid heat-damage.
b. Maintain the pre-heat and peak temperatures with dip units as low as possible and the times as short as is feasible, since the products are susceptible to heat during flow soldering.
c. After soldering, allow at least three minutes for the component to cool to room temperature before further operations.
d. If components will undergo multiple soldering processes, or other processes where the components may be subjected to intense heat, please check with Toplight for compatibility.

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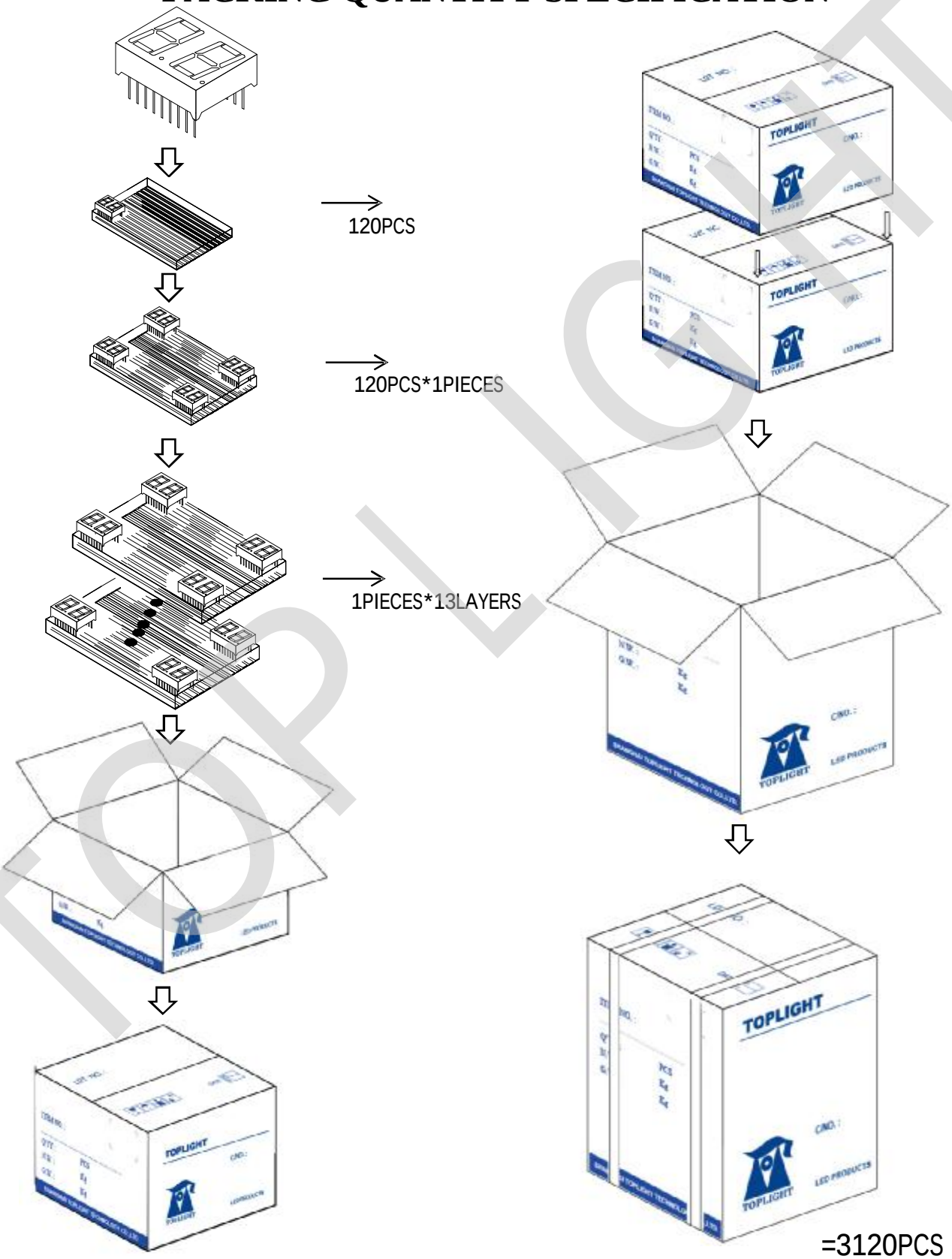
PACKING QUANTITY SPECIFICATION



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