SPECIFICATIONS

LED Symbol指示符产品规格书

TOPLITE

MODEL：TOP-L1105ZH

上海鼎晖科技股份有限公司
SHANGHAI TOPLITE TECHNOLOGY CO.,LTD.

www.ledtoplight.com.cn
www.ledtoplite.com

TECHNICAL DATA SHEET
TOP-L1105ZH

1. FEATURES

※ Low power requirement,

※ Solid state reliability.

※ Square emitting surface.

※ Easy mounting on P.C. boards.

※ RoHS compliant.

2. DESCRIPTION

※ The TOPLITE TOP-L1105ZH is a strip light emitting surface of the light bar.

※ This device is made with red segments and black surface..

3. APPLICATION

※ Audio equipment.

※ Instrument panels.

※ Elevator.

PART NO.	SIZE	CHIP EMITTED COLOR	FACE COLOR
TOP-L1105ZH	59.9×7mm	Red	Black

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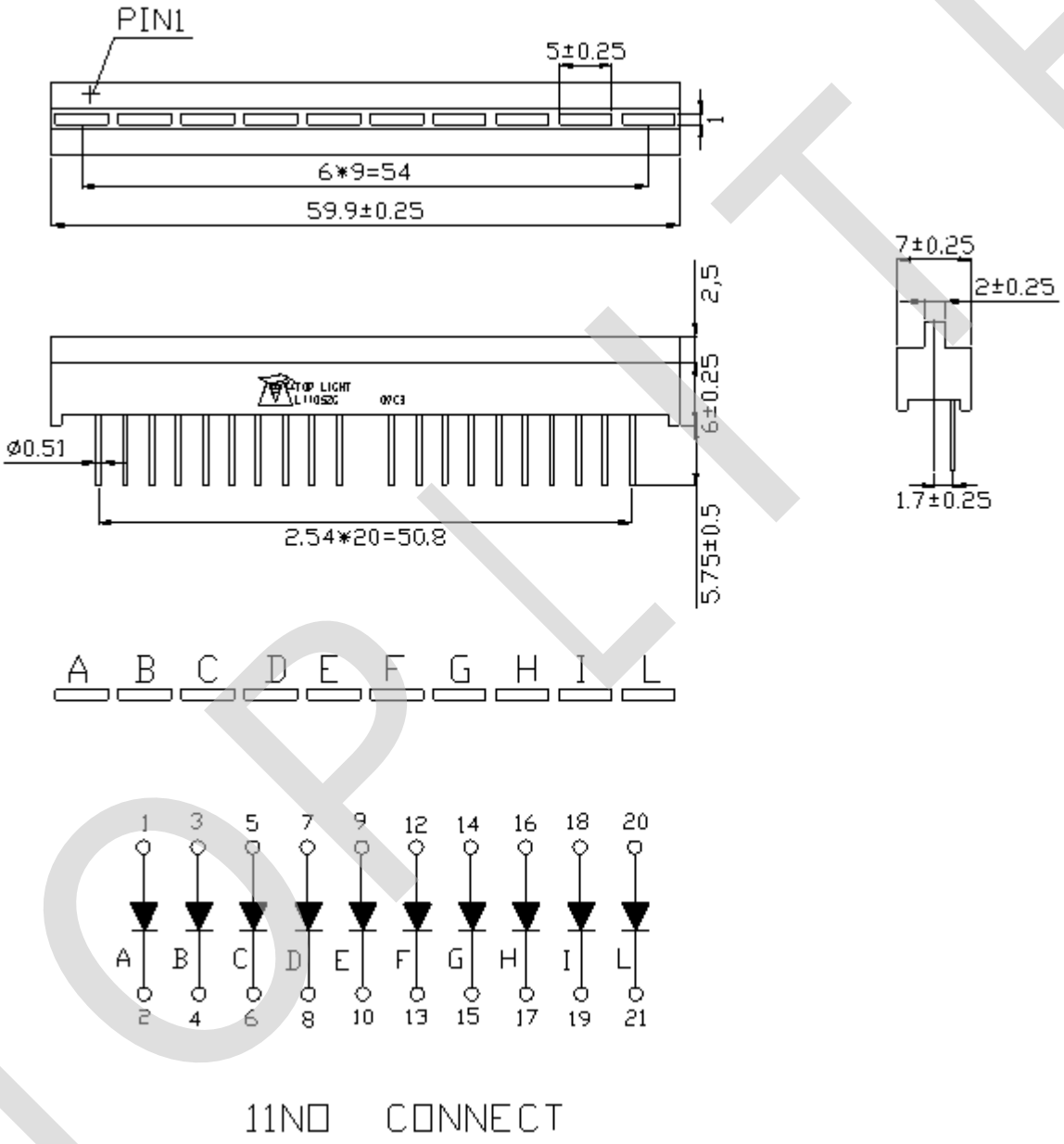
4. PACKAGEDIMENSIONS& CIRCUIT DIAGRAM



5. ELECTRICAL/OPTICAL CHARACTERISTIC

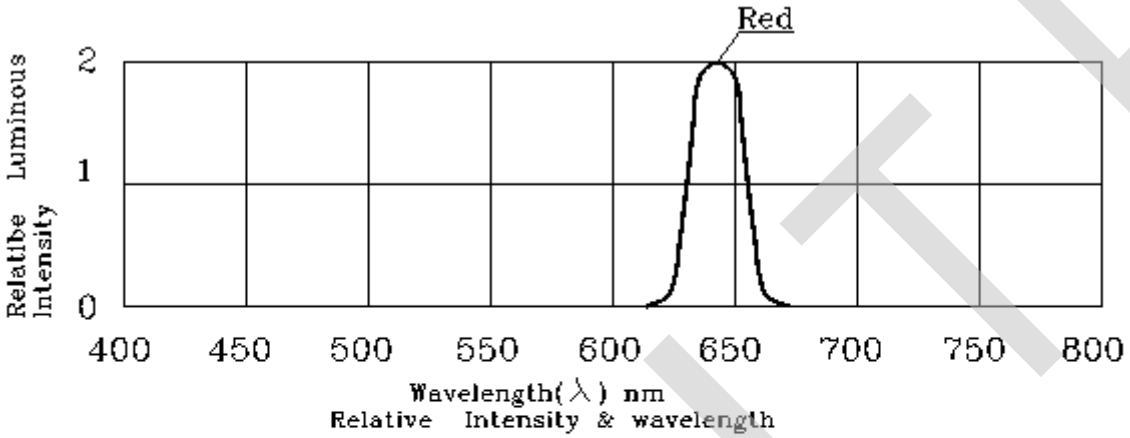
5-1. ABSOLUTE MAXIMUM RATINGS(Ta=25℃)

PARAMETER	SYMBOL	VALUE	UNIT
Reverse Voltage	V_R	5	V/dot
Forward Current	I_F	30	mA/dot
Peak Forward Current (1/10 Duty Cycle)	I_{PEAK}	120	mA/dot
Power Dissipation	P_D	80	mW/dot
Operating Temperature Range	T_A	- 25 ~ + 85	℃
Storage Temperature Range	T_{STG}	- 30 ~ + 85	℃
Solder Temperature	Tsol	260/3	℃/s

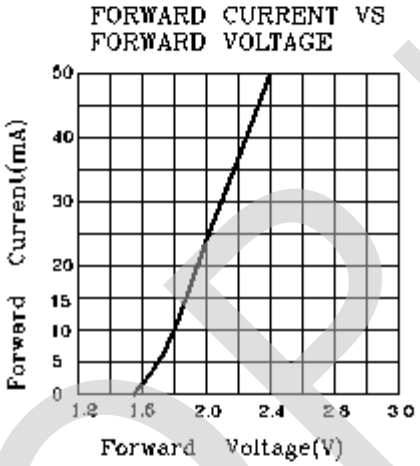
5-2. ELECTRICAL/OPTICALCHARACTERISTICS(Ta=25℃)

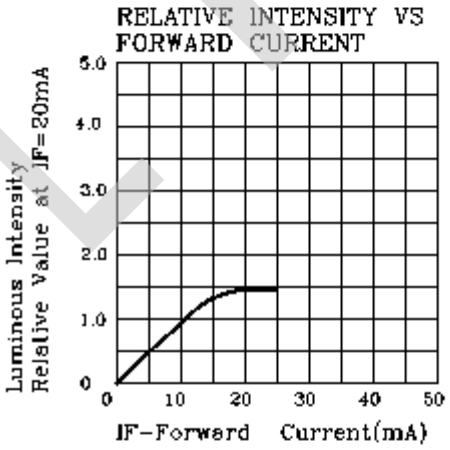
PARAMETER	SYMBOL		MIN.	TYP.	MAX.	UNIT	TEST CONDITIONS
Luminous Intensity	I_V	M	6145	7066	7987	ucd	I_F=10mA
		N	7988	9186	10383		
		P	10384	11942	13499		
Forward Voltage	V_F		1.70	1.85	2.20	v/dot	I_F=20mA
Chromatographer	λ_p		—	640	—	nm	I_F=20mA
Spectral Line Half-Width	$\Delta\lambda$		—	20	—	nm	I_F=20mA
Reverse Current	I_R		—	—	20	uA	V_R=5v

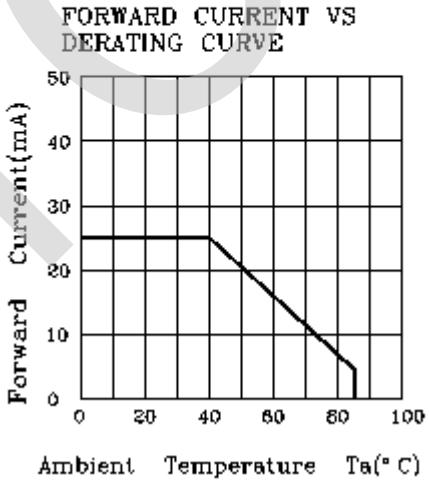
5-3. ELECTRICAL/OPTICAL CHARACTERISTIC CURVES

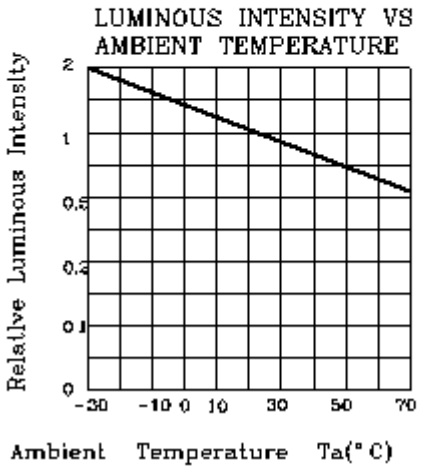


Relative Intensity & wavelength









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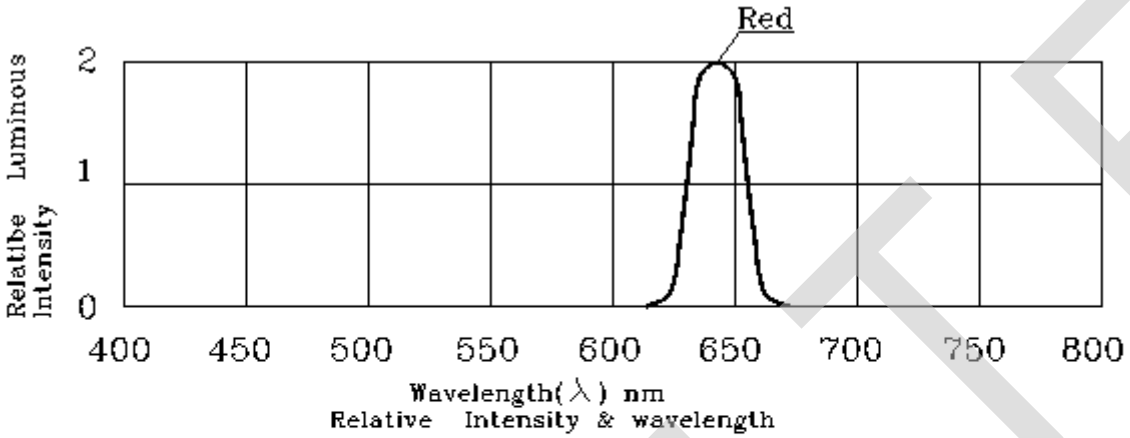

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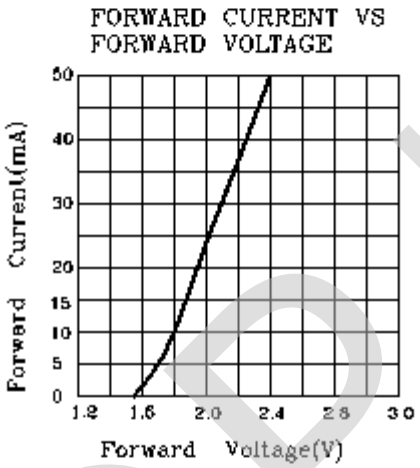

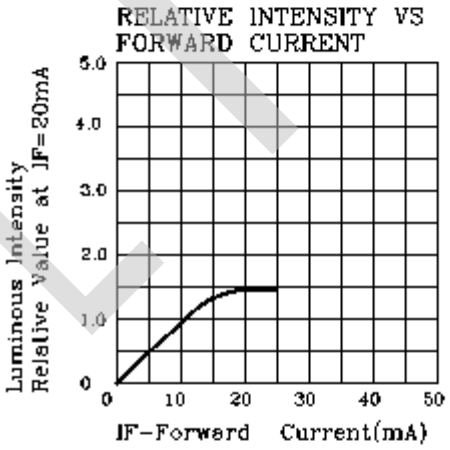

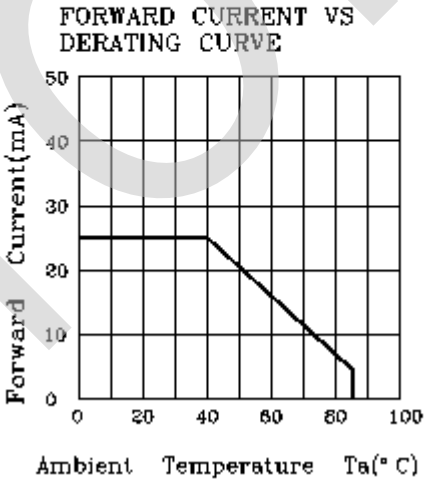

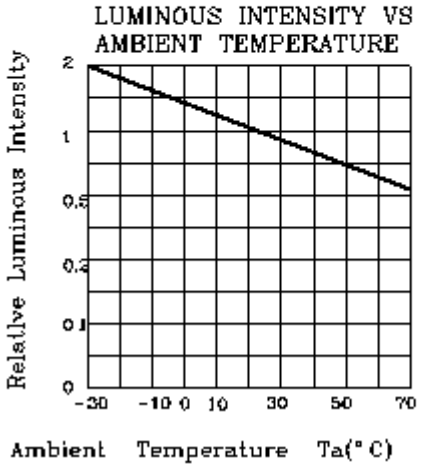

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6. QUALITY CONTROL AND ASSURANCE

CLASSIFICATION	TEST ITEM	TEST CONDITION
ENDUTRANCE TEST	OPERATION LIFE	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)
	MOISTURE	Ta=65℃±5℃ RH=90-95% Test time=240HRS±2HRS
	HIGH TEMPERATURE HIGH HUMIDITY REVERSE BIAS	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 hightemperature Ta=85℃±5℃ Test time=1000HRS(-24HRS+72HRS)
	LOW TEMPERATURE STORAGE	Ta=-35℃±5℃ Test time=1000HRS(-24HRS+72HRS)
ENVIRONMENTAL TEST	TEMPERATURE CYCLING	Ta=85℃～25℃～-35℃ time=30min 5min 30min 5min Cycle test:10cycles
	THERMAL SHOCK	Ta=85℃±5℃～-35℃±5℃ time=10min 10min Cycle test:10cycles
	SOLOER RESISTANCE	T.sol=260℃±5℃ time=10±1sec
	SOLOER ABILITY	T.sol=230℃±5℃ time=5±1sec

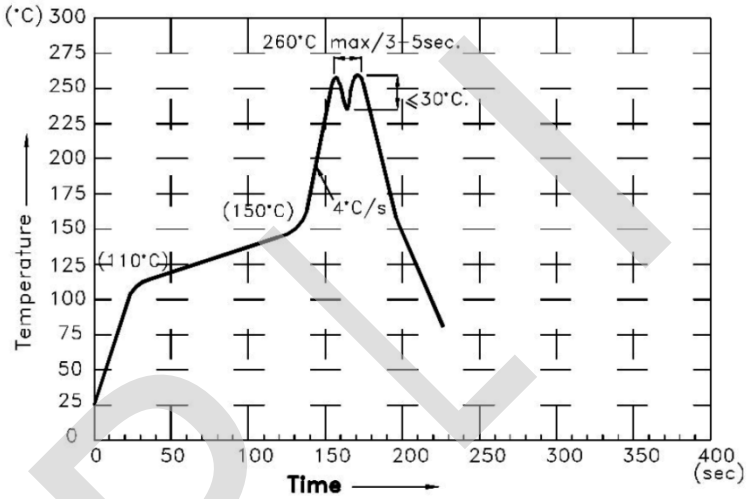
7. SOLDERING CONDITIONS

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.

7-1. 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.

7-2. Through the Wave Soldering ConditionsWaveSolderingProfile For Lead-free Through-hole LED.



7-3. Soldering General Notes:

a. Recommend manual soldering to be used only for repair and rework purposes. The soldering iron shouldnot 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, least three minutes for the component to cool to room temperature before furtheroperations.
d. Ifcomponents will undergo multiple soldering processes, orother processeswhere the components may besubjected to intense heat, please check with for compatibility.