WCN Opto Group Co., Limited

WCNLB2727-SR11

SPECIFICATION

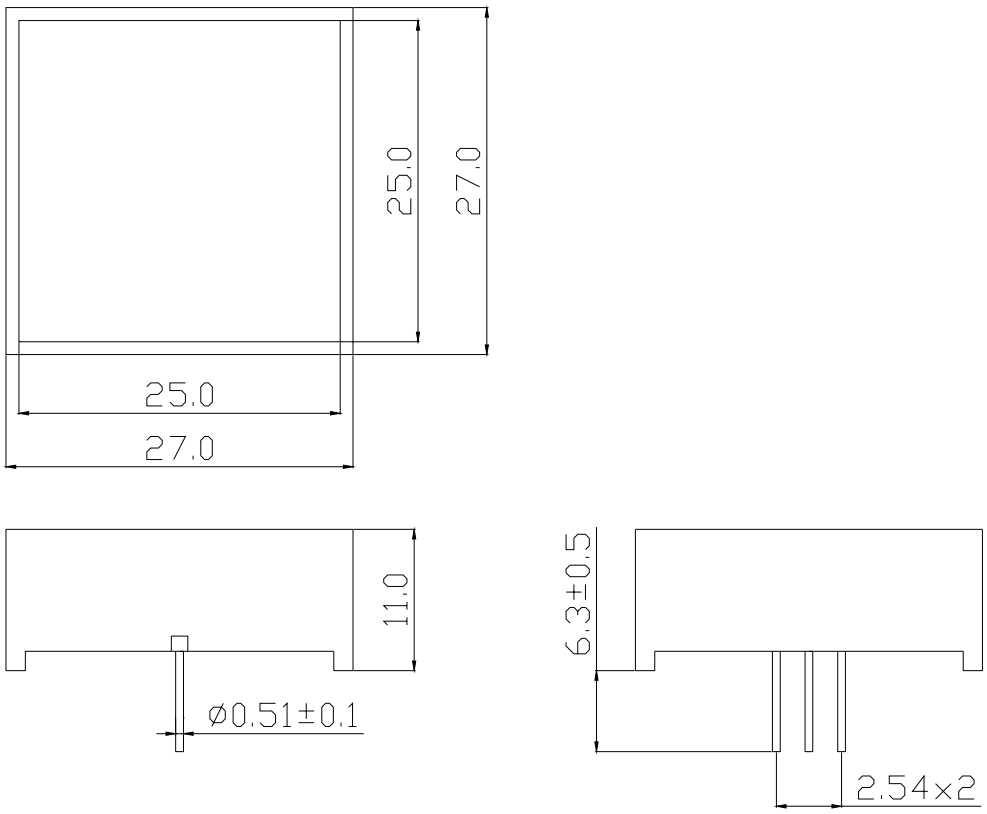
WCN			CUSTOMER Confirmed
Prepared by	Checked by	Approved by	
Fei 2016-8-5	Athena	William	
REVISION RECORD A1:New Version issued (2016-8-5)			

RoHS

恒盛源光电科技(深圳)有限公司 开发部 WCN

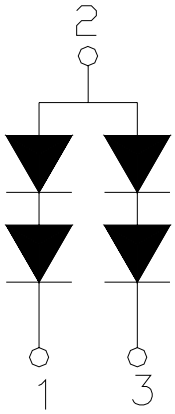
REVISION: A1

■ Outer Dimension:



Notes: Unless otherwise stated, The tolerance is ±0.25mm.

■ Circuit Diagram:



■ Pin Connection:

PIN NO.	CONNECTION	PIN NO.	CONNECTION
1	Cathode	3	Cathode
2	Anode		

■ Features:

- . High Reliability
- . Color:Red
- . Low Power Requirement
- . Easy Assembly

■ Description:

- . One Window Bar Display
- . Bar Height 25 mm and Width 25 mm
- . White Face and Milky Bar

■ Absolute Maximum Rating (Ta=25℃):

Parameter	Symbol	Condition	Color	Rating	Units
Power Dissipation Per Bar	P_d	—	Red	130	mW
Forward Current Per Bar	I_F	—	Red	25	mA
Peak Forward Current Per Bar	I_{FP}	1/10 Duty 10KHz	Red	100	mA
Reverse Voltage Per Bar	V_R	—	Red	5	V
Operating Temperature Range	Topr	—	—	-35～+85	℃
Storage Temperature Range	Tstg	—	—	-35～+85	℃

■Electrical/Optical Characteristics Rating(Ta=25℃)

Item	Symbol	Test conditions	Location	Rating			Units
				Min.	Typ.	Max.	
Forward Voltage	V_F	I_F=20mA	Per Bar	—	4.0	5.2	V
Reverse Current	I_R	V_R=5V	Per Bar	—	—	100	μA
Luminous Intensity	I_V	I_F=10mA	Per Bar	12801	19500	3100	μcd
Wave Length	λ_P	I_F=20mA	Per Bar	—	638	—	nm
	λ_D				633		
Spectral Line Half Width	△λ	I_F=20mA	Per Bar	—	30	—	nm
Luminous Intensity Matching Ratio (Bar to Bar)	I_{v-m}	I_F=10mA				1.2:1	

■ Soldering Conditions: Soldering Temp. ≦+260℃ Soldering Time. ≦3sec.

(at 2mm Distance from The Case of Reflector Edge).

■ Typical Elector-Optical Characteristics Curve:

Fig 1. Forward Current vs. Forward Voltage

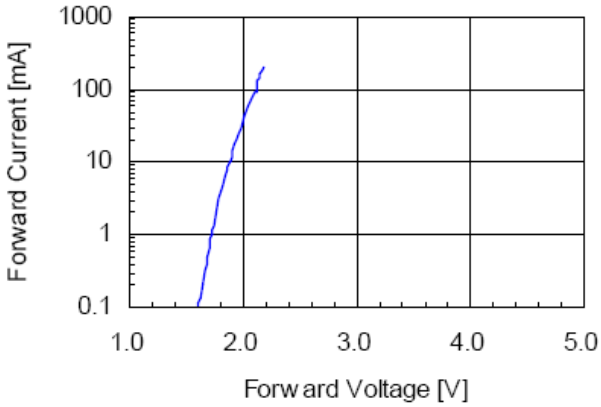


Fig 2. Relative Intensity vs. Forward Current

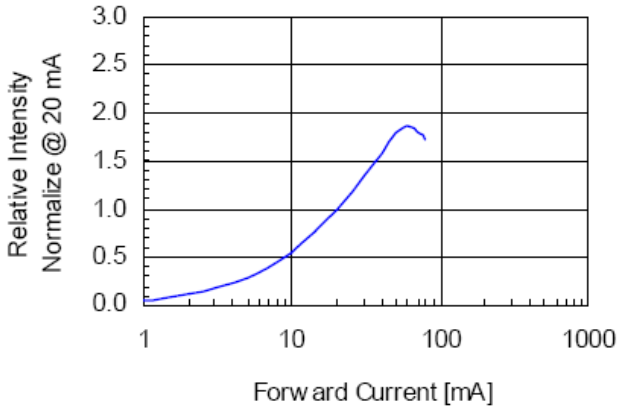


Fig 3. Forward Voltage vs. Temperature

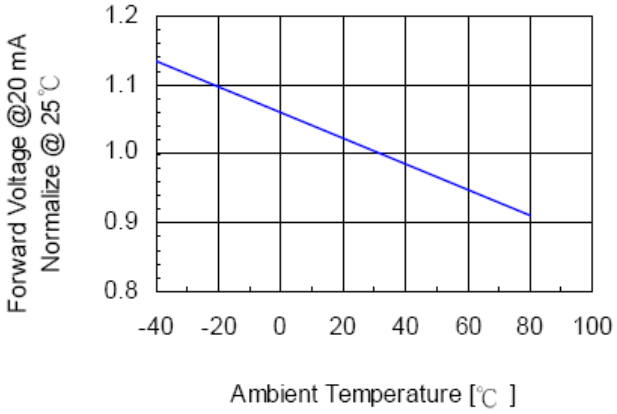


Fig 4. Relative Intensity vs. Temperature

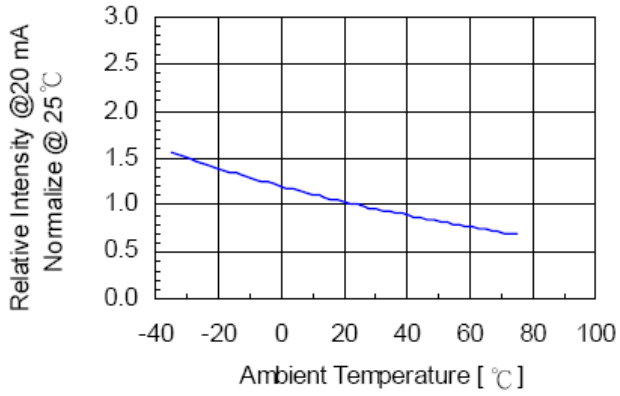
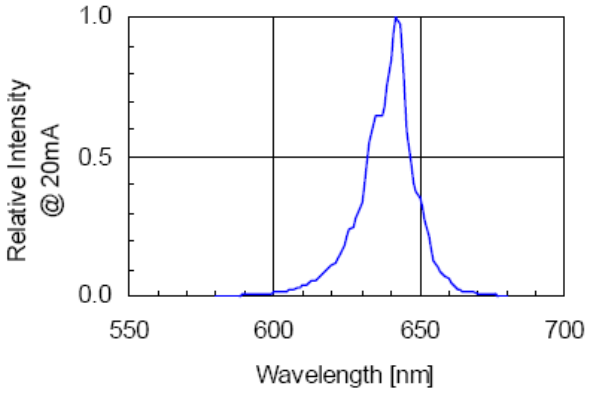


Fig 5. Relative Intensity vs. Wavelength



■ LED Displays Reliability Test:

CLASSIFICATION	TEST ITEM	DESCRIPTION AND TEST CONDITION
ENDURANCE TEST	OPERATION LIFE	EVALUATES RESISTANCE OF THE DEVICE WHEN OPERATED AT ELECTRICAL STRESS T_a = UNDER ROOM TEMPERATURE $I_F = I_F$ max
	HIGH TEMPERATURE HIGH HUMIDITY STORAGE	EVALUATES MOISTURE RESISTANCE OF THE DEVICE WHEN STORED FOR A LONG TERM AT HIGH TEMPERATURE AND HUMIDITY T_a =65±5°C RH=90~95%RH TEST TIME=240± 2Hrs
	HIGH TEMPERATURE STORAGE	EVALUATES DEVICE DURABILITY FOR LONG TERM STORAGE IN HIGH TEMPERATURE T_a =85±5°C(COB: Ta=65±5°C) TEST TIME=1000Hrs(-24Hrs, +72Hrs)
	IOW TEMPERATURE STORAGE	EVALUATES DEVICE DURABILITY FOR LONG TERM STORAGE IN LOW TEMPERATURE T_a =-35±5°C TEST TIME=1000Hrs(-24Hrs, +72Hrs)
ENVIRONMENTAL TEST	TEMPERATURE CYCLING	EVALUATES RESISTANCE OF DEVICE AT THERMAL STRESSES OR EXPANSION AND CONTRACTION 85°C ~ 25°C ~ -35°C ~ 25°C 30min 5min 30min 5min 10 CYCLES(COB: Thot=65°C, Tcold=-25°C
	THERMAL SHOCK	EVALUATES DEVICE STRUCTURE AND STRUCTURE AND MECHANICAL RESISTANCE WHEN SUDDENLY EXPOSED AT SERVE CHANGES 85±5°C ~-35±5°C 10min 10min 10 CYCLES(COB: Thot=65°C,Tcold=-25°C
	SOLDERABILITY	EVALUATES SOLDERABILITY ON LEADS OF DEVICE T.SOL=230±5°C DWELL TIME=5±1sec.
	SOLDER RESISTANCE	EVALUATES RESISTANCE TO THERMAL STRESS CAUSED BY SOLDERING T.SOL=260±5°C DWELL TIME=10±1sec.

■ Packing method A:

96pcs / Red Expandable Polyethylene.

960 pcs / Box(365*265*255mm).

1920 pcs / Catton(550*380*280mm).