



СВЕТОДИОДЫ BEELED – ТЕХНИЧЕСКОЕ ОПИСАНИЕ

SPECIFICATION FOR APPROVAL

CUSTOMER'S CODE

客户代码: 3619R1G3C-DSC

DESCRIPTION

品名: 发光二极管

SPECIFICATION

规格: $\Phi 3$ 平头红绿双色共阳

DATE

送样日期: 2017-05-25

PART NO.

本厂型号: 3619R1G3C-DSC

REFERENCE No.

档案号: 3619R1G3C-DSC

NUMBER OF SAMPLE

送样数量

COPY OF ACKNOWLEDGEMENT

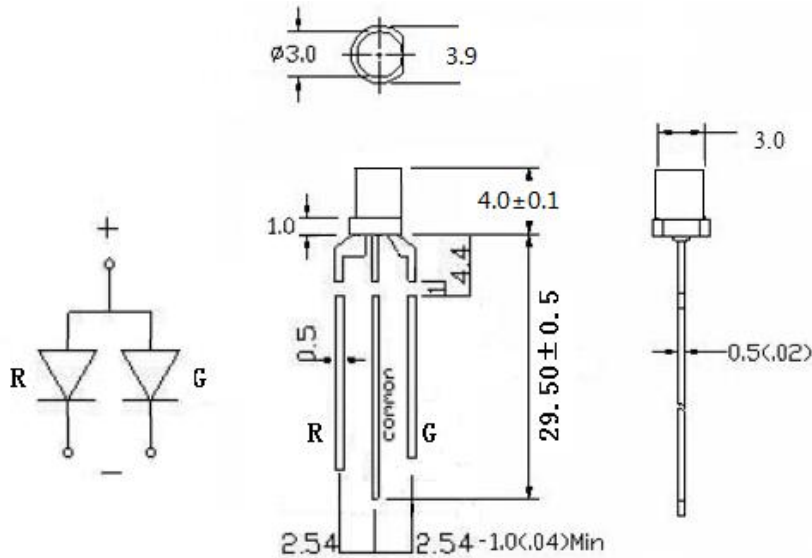
承认书份数

Approved By Customer	Qualified By	Form Designer

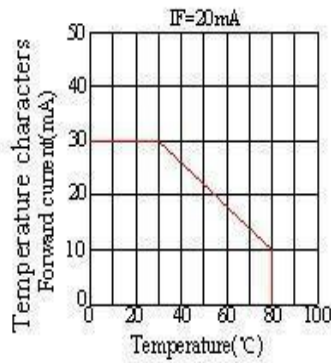
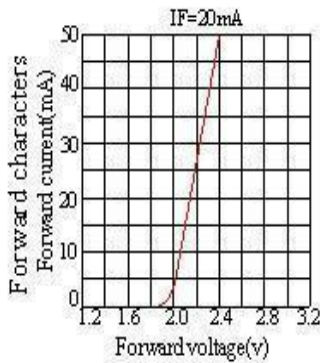
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Emitter:

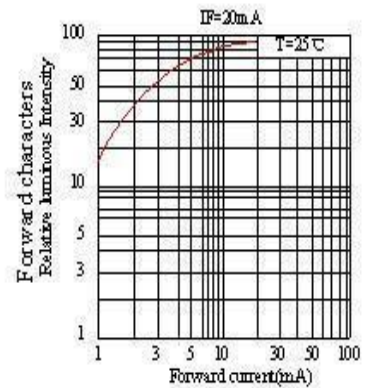
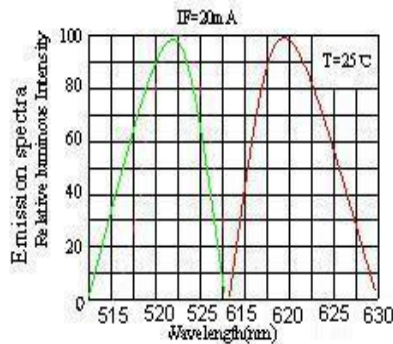
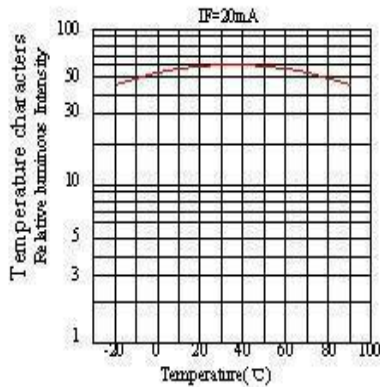


Typical Characteristics curves



Notes:

The data are an typical presentation of the product, Contact customer service for details of technical information and warranty.
The product is sensitive to static antistatic operation environment is recommended
Products are shipped in either bulk bag package or taping.





СВЕТОДИОДЫ BEELED – ТЕХНИЧЕСКОЕ ОПИСАНИЕ

■ Absolute Maximum Rating 极限工作参数

Item	Symbol	Absolute Maximum Rating	Unit
Forward Current 正向电流	IF	20	mA
Peak Forward Current 瞬间脉冲电流	IFP	50	mA
Reverse Voltage 反向电压	VR	5	V
Power Dissipation 消耗功率	PD	100	mw
Electrostatic discharge 静电释放	ESD	2000	V
Operation Temperature 工作温度范围	TOPR	-25~+80	°C
Storage Temperature 存放温度范围	TSTG	-40~+80	°C
Lead Soldering Temperature 最高焊接温度	TSOL	260 °C for 3sec Max.	

*Ifp Conditions: Pulse Wide ≤ 10msec ≤ 1/10

*Tsol Conditions: 3mm from the base of epoxy bulb 3mm

■ Typical Optical/Electrical Characteristics

Item	Symbol	Condition	Min	Typ	Max	Unit
Forward Voltage 正向电压	VF	IF=20mA	R	2.1		V
			G	3.1		
Light intensity 光强度	IV	IF=20mA	R	800		mcd
			G	2000		
Wavelength 波长	WD	IF=20mA	R	620		nm
			G	520		
Reverse current 逆向电流	IR	IF=20mA			5	uA

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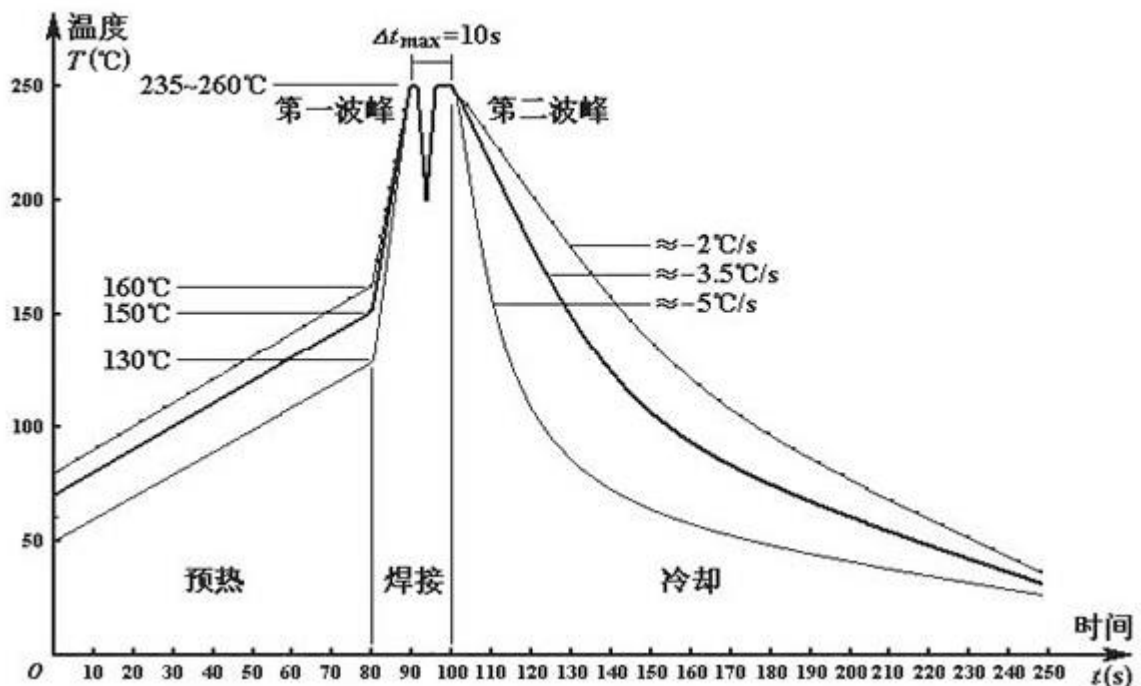
Viewing Angle	半光全角	2θ 1/2	IF=20mA			60	deg
Recommend Forward Current	持续正向电流	IF(rec)	IF=20mA			20	mA

Notes:

1. Work absolute ratings $T_a=25^\circ\text{C}$ 工作常规值 温度=25°C

2. Tolerance of measurement of forward voltage $\pm 0.1\text{V}$ 正向电压误差范围 $\pm 0.1\text{V}$

■ Soldering Profile Suggested





СВЕТОДИОДЫ BEELED – ТЕХНИЧЕСКОЕ ОПИСАНИЕ

LED LAMP RELIABILITY

● Test Items And Results

Type	Test Item	REF. Standard	Test Condition	Note	Number of Damaged
Environmental Sequence	Temperature Cycle	JIS C 7021 (1997) A-4	-20°C → 25°C → 80°C → 25°C 30mins,5mins,30mins,5mins	100 cycles	0/100
	High Humidity Heat Cycle	JIS C 7021 (1997) A-5	30°C → 65°C 90%RH 24hrs/1cycle	10 cycles	0/100
	High Temperature Storage	JIS C 7021 (1997) B-10	Ta=80j æ	1000hrs	0/100
	Humidity Heat Storage	JIS C 7021 (1997) B-11	Ta=60j æ RH=90%	1000hrs	0/100
	Low Temperature Storage	JIS C 7021 (1997) B-12	Ta= -30j æ	1000hrs	0/100
Operation Sequence	Life Test	JIS C 7035 (1985)	Ta=25j æ I _F =20mA	1000hrs	0/100
	High Humidity Heat Life Test	*	60°C RH=90% I _F =20mA	500hrs	0/100
	Low Temperature Life Test	*	Ta= -20°C I _F =20mA	1000hrs	0/100
Destructive Sequence	Resistance to Soldering Heat	JIS C 7021 (1997) A-11	Tsol=260 j Åj æ0sec (3mm from the base of the epoxy bulb)	1 time	0/20
	Solderability	JIS C 7021 (1997) A-2	Tsol=235 j Åj æ5sec (Using flux)	1 time (over 95%)	0/20
	Lead Pull/Bend Test	JIS C 7021 (1997)A-11	Load 2.5N (0.25kgf) 0° →90° →0° Bending 3 times	No noticeable damage	0/20

* Refer to reliability test standard specification for in this line.

● Criteria for Judging The Damage

Item	Symbol	Test Condition	Criteria for Judgment	
			Min.	Max.
Forward Voltage	V _F	I _F = 20mA	---	Initial data x 1.1
Reverse Current	I _R	V _R = 5V	---	Initial data x 2.0
Luminous Intensity	I _v	I _F = 20mA	Initial data x 0.7	---



СВЕТОДИОДЫ BEELED – ТЕХНИЧЕСКОЕ ОПИСАНИЕ

Product Notes:

Product transportation

Scope of application: for all products

In the course of transportation, led products need to keep face-up, moisture-proof and waterproof, need to avoid extrusion, collision and violent vibration.

Product storage and time limit

Scope of application: for all products

Sealed storage at room temperature: 20°C~30°C, 40%~60%RH and product valid for six months;

Moisture-proof sealing storage: 20°C~30°C, 25%~60%RH and product valid for one year;

After unpacking, led product is recommended to complete within 24 hours (Environmental conditions temperature <30 °C, humidity <60%).

Dehumidification process

Scope of application: LED series

LED products beyond the above deadline, or for other reasons be damp, we recommend that customers do dehumidification before use.

Dehumidification method: 70°C/22±2hours.

Junction temperature limit and thermal treatment

Scope of application: for all products

When LED products are in use, please ensure that there are the necessary thermal design and if LEDs are inadequate cooling and LED internal junction temperature exceeds 125 °C , the LED luminous efficiency and service life will be reduced.



СВЕТОДИОДЫ BEELED – ТЕХНИЧЕСКОЕ ОПИСАНИЕ

Electrostatic protection

Scope of application: for all products

LED is an electrostatic sensitive product, and although Hanhua opto electronic LED products with excellent anti-static ability, every shock generated by electrostatic discharge will have a certain degree of damage to the LED. Therefore, in the process of using LED products, we need to do electrostatic protective measures, Such as wear anti-static gloves and anti-static bracelets.

Manual welding operation guidelines

Scope of application: for all products

when welding, we advice the soldering iron on the bracket pin's residence time is not more than 3 seconds and if need to weld repeatedly, the interval time is not less than 2 seconds, in order to avoid long-time high temperature causing damage to the LED.

Others notes:

When Using LED matrix drive, to make sure the reverse voltage does not exceed the maximum rating, and the LED light output intensity can let a person discomfort, and we must take preventive measures, in order to ensure direct vision LED no more than a few seconds. After finding defective LEDs, users should inform us, and shouldn't make the reverse process of LEDs ,such as anatomy and analysis, etc.