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Good quality & Fast delivery

## Snowdragon Industrial Co.,Ltd

### DATA SHEET

**MODEL N.O.: SDL503TWD-S-HH-A**

**ENG. N.O.: 120202001**

**Description:**

- **Shape: 5MM Round**
- **Emitting Color: RGB**
- **Lens Color : Diffused**
- **Viewing Angle: 20°**
- **Common Cathode**

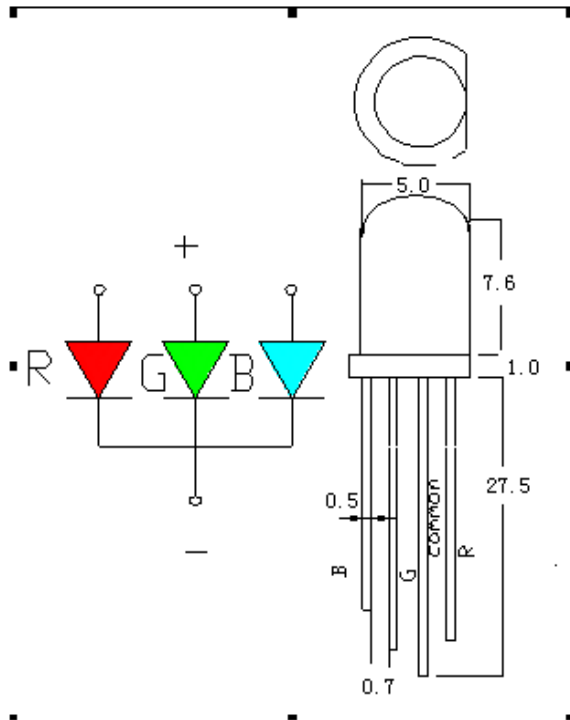
PREPARED BY	CHECKED BY	APPROVED BY
CUSTOMER APPROVED SIGNATURES		



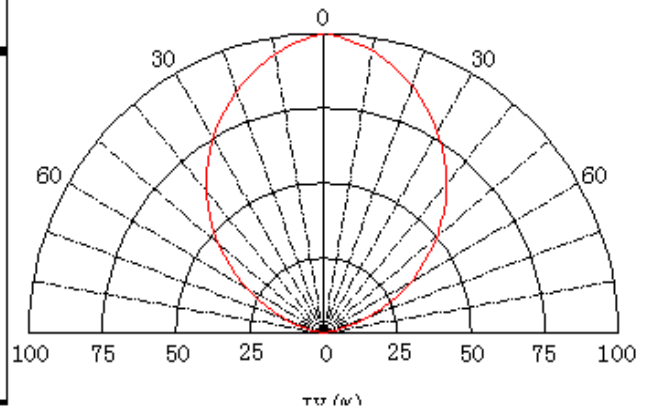
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Emitter 外型图: ↵

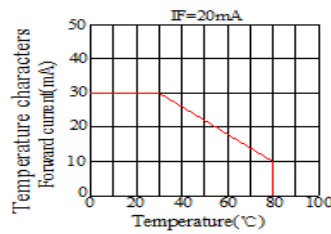
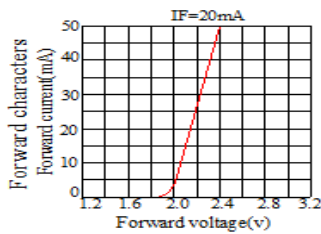


Spatial Distribution



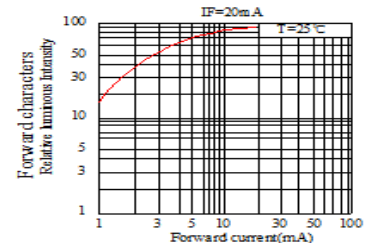
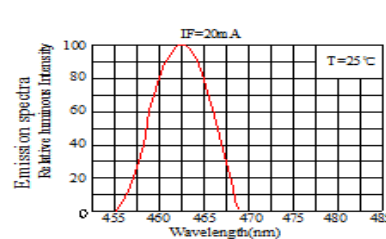
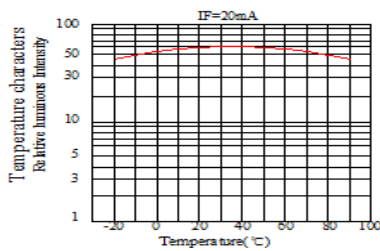
Typical electrical-optical Characteristics curves

Typical electrical-optical 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 anti static operation environment is recommended. Products are shipped in either bulk bag package or taping.





■ Absolute Maximum Rating

Item	Symbol	Absolute Maximum Rating	Unit
Forward Current	IF	20	mA
Peak Forward Current	IFP	50	mA
Reverse Voltage	VR	5	V
Power Dissipation	PD	100	mw
Electrostatic discharge	ESD	1000	V
Operation Temperature	TOPR	-25~+80	°C
Storage Temperature	TSTG	-40~+80	°C
Lead Soldering Temperature	TSOL	330 °C for 3sec Max.	

■ Typical Optical/Electrical Characteristics

Item	Symbol	Condition	Min	Typ	Max	Unit	
Forward Voltage	VF	IF=20mA	R	1.8	2.0	2.2	V
			G	3.0	3.2	3.4	
			B	3.0	3.2	3.4	
Light intensity	IV	IF=20mA	R	600	700	800	mcd
			G	1500	1600	1700	
			B	500	600	700	
Wavelength	WD	IF=20mA	R	620	623	625	nm
			G	517	520	522	
			B	465	468	470	
Reverse current	IR	IF=20mA	0	/	5	uA	
Viewing Angle	2θ 1/2	IF=20mA			20	deg	
Recommend Forward Current	IF(rec)	IF=20mA			20	mA	

Notes:

1. Work absolute ratings Ta=25°C
2. Tolerance of measurement of forward voltage ± 0.1V

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## 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℃→25℃→80℃→25℃ 30mins,5mins,30mins,5mins	100 cycles	0/100
	High Humidity Heat Cycle	JIS C 7021 (1997) A-5	30℃→65℃ 90%RH 24hrs/1cycle	10 cycles	0/100
	High Temperature Storage	JIS C 7021 (1997) B-10	Ta=80℃	1000hrs	0/100
	Humidity Heat Storage	JIS C 7021 (1997) B-11	Ta=60℃ RH=90%	1000hrs	0/100
	Low Temperature Storage	JIS C 7021 (1997) B-12	Ta= -30℃	1000hrs	0/100
Operation Sequence	Life Test	JIS C 7035 (1985)	Ta=25℃ I <sub>F</sub> =20mA	1000hrs	0/100
	High Humidity Heat Life Test	*	60℃ RH=90% I <sub>F</sub> =20mA	500hrs	0/100
	Low Temperature Life Test	*	Ta= -20℃ I <sub>F</sub> =20mA	1000hrs	0/100
Destructive Sequence	Resistance to Soldering Heat	JIS C 7021 (1997) A-11	Tsol=260 ± 5℃,10sec (3mm from the base of the epoxy bulb)	1 time	0/20
	Solderability	JIS C 7021 (1997) A-2	Tsol=235 ± 5℃,5sec (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 <sub>F</sub>	I <sub>F</sub> = 20mA	---	Initial data x 1.1
Reverse Current	I <sub>R</sub>	V <sub>R</sub> = 5V	---	Initial data x 2.0
Luminous Intensity	I <sub>v</sub>	I <sub>F</sub> = 20mA	Initial data x 0.7	---

