



Snowdragon Industrial Co.,Ltd

DATA SHEET

MODEL No : SDL701GWY-0-SH-D

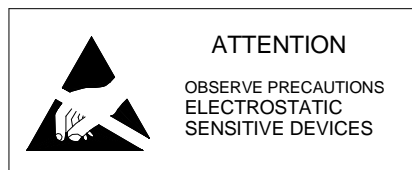
ENG. No:

Description:

- 5mm Cylindrical lamp
- Lens Color: Diffused
- Emitting Color: Green
- Viewing Angle :120°
- No Stopper

Dice Material: AlGaInP

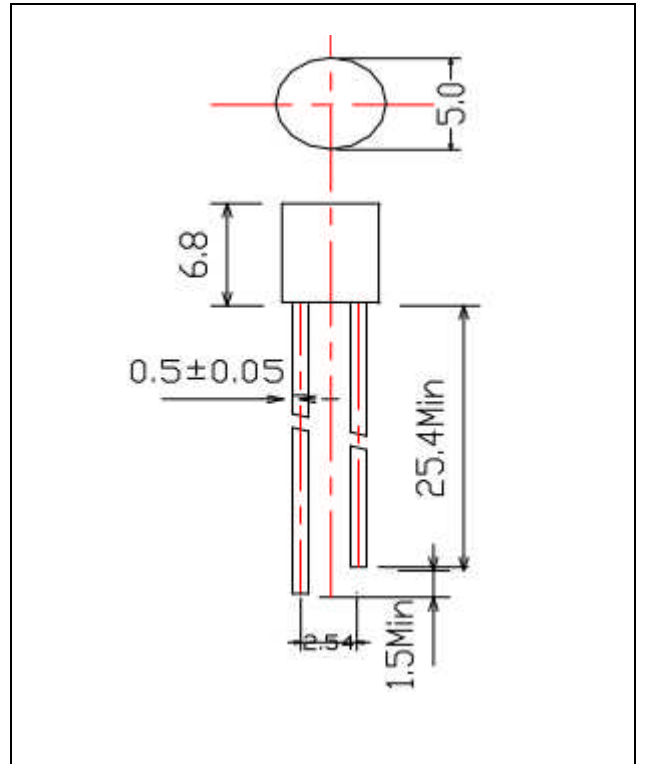
PREPARED BY	CHECKED BY	APPROVED BY
CUSTOMER APPROVED SIGNATURES		



Absolute Maximum Ratings at Ta = 25°C

Items	Symbol	Absolute maximum Rating	Unit
Forward Current	I_F	25	mA
Peak Forward Current*	I_{FP}	100	mA
Reverse Voltage	V_R	5	V
Power Dissipation	P_D	100	mW
Operation Temperature	T_{opr}	-20 ~ +75	°C
Storage Temperature	T_{stg}	-30 ~ +80	°C
Lead Soldering Temperature	T_{sol}	Max.260°C for 3 sec Max. (3mm from the base of the epoxy bulb)	

*pulse width $\leq 0.1\text{msec}$ duty $\leq 1/10$



Typical Electrical & Optical Characteristics (Ta = 25°C)

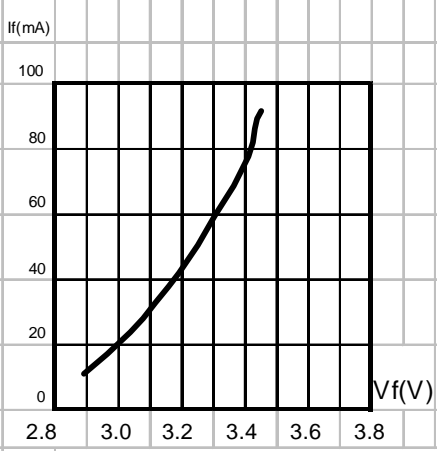
Items	Symbol	Condition	Min.	Typ.	Max.	Unit
Forward Voltage	-	$I_F = 20\text{mA}$	3.0	3.2	3.4	V
Reverse Current	-	$V_R = 5\text{V}$	---	---	10	μA
Wavelength	-	$I_F = 20\text{mA}$	---	517	---	nm
Luminous Intensity	-	$I_F = 20\text{mA}$	750	800	850	mcd
50% Power Angle	-	$I_F = 20\text{mA}$	---	120	---	deg
	-	$I_F = 20\text{mA}$	---	---	---	deg

Rank	Luminous Intensity(mcd)	Rank	Luminous Intensity(mcd)	Rank	Luminous Intensity(mcd)
/	/	/	/	/	/

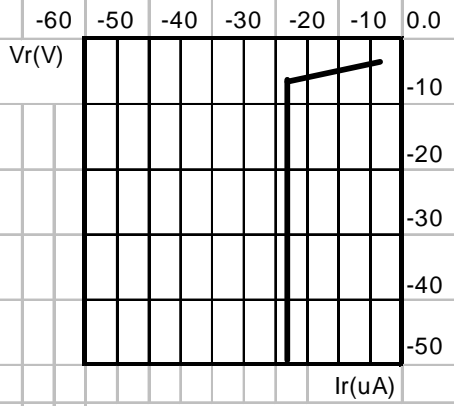
Important Notes:

- 1) All ranks will be included per delivery, rank ratio will be determined by Snowdragon
- 2) Tolerance of measurement of luminous intensity is $\pm 15\%$.
- 3) Tolerance of measurement of dominant wavelength is $\pm 1\text{nm}$.
- 4) Tolerance of measurement of Vf is $\pm 0.05\text{V}$.
- 5) Packaging methods are available for selection, please refer to PACKAGING STANDARD.
- 6) Please refer to LED LAMP RELIABILITY TEST STANDARD for reliability test conditions.

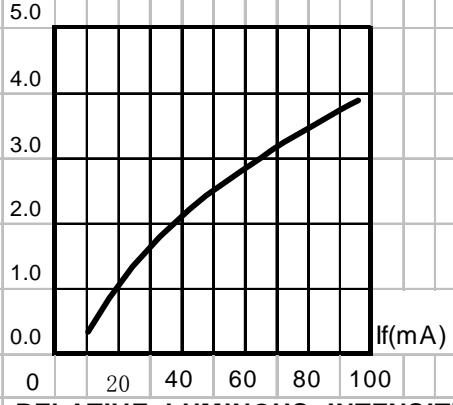
Typical Optical-Electronic Characteristic Curves



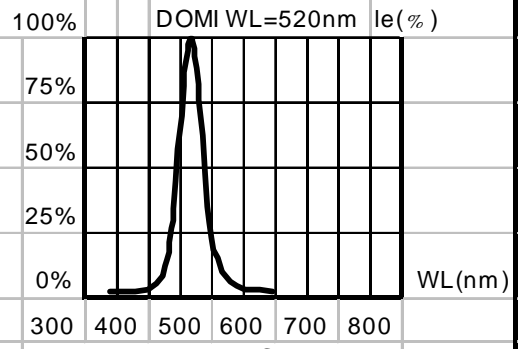
FORWARD CURRENT V S . FORWARD VOLTAGE



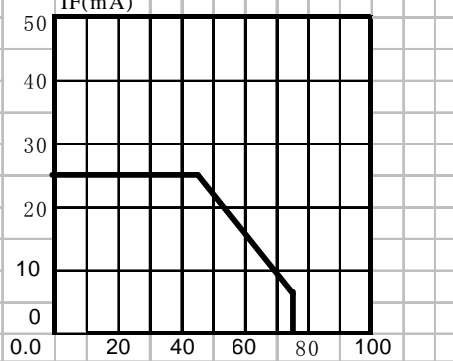
REVERSE CURRENT V S . REVERSE VOLTAGE



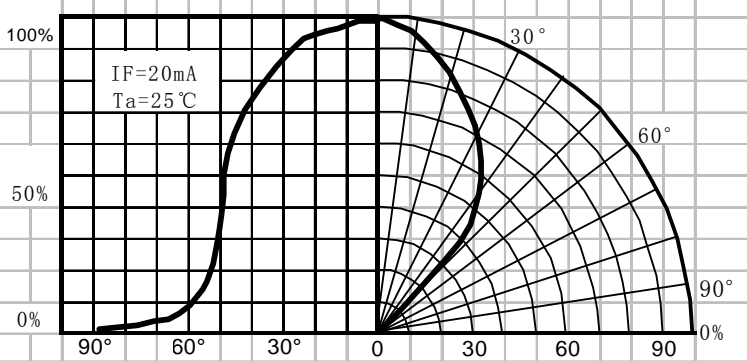
RELATIVE LUMINOUS INTENSITY V S . FORWARD CURRENT .



RELATIVE LUMINOUS INTENSITY VS WAVELENGTH



MAXIMUM FORWARD CURRENT VS TEMPERATURE(Tjmax=105°C)



FAR FIELD PATTERN

LED Lamp Reliability test standard

Type	Test Item	REF. Standard	Test conditions		Note	Number of Damaged
			Binary / Trinary Chip	Quaternary Chip		
Environments Sequence	Temperature Cycle	JIS C7021 (1977)A4	-20°C~25°C~80°C~25°C 30min,5min,30min,5min	-40°C~25°C~100°C~25°C 30min,5min,30min,5min	100 cycles	0/100
	Thermal shock	MIL-STD-202G	-20°C~80°C 30min, 30min	-40°C~100°C 30min, 30min	100 cycles	0/100
	High Temperature Storage(*)	JIS C7021 (1977)B10	Ta=80°C	Ta=100°C	1000Hrs	0/100
	Low Temperature Storage	JIS C7021 (1977)B12	Ta=-30°C	Ta=-40°C	1000Hrs	0/100
Operation Sequence	Life test	JIS C7035 (1985)	Ta=25°C If=25mA	Ta=25°C If=25mA	1000Hrs	0/100
	High humidity Heat life test	-----	60°C RH=90% If=20mA	60°C RH=90% If=20mA	500Hrs	0/100
	Low temperature Life test	-----	Ta=-20°C If=20mA	Ta=-30°C If=20mA	1000Hrs	0/100
Destructive Sequence	Resistance to solderingHeat	JIS C7021 (1977)A11	Tsol=260±5°C ,10sec. (3mm from the base of the epoxy bulb)		1 time	0/20
	Solder ability	JIS C7021 (1977)A2	Tsol=235±5°C ,5sec. (using flux)		1 time (over95%)	0/20
	Lead Pull/Bend Test	JIS C7021 (1977)A11	Load 2.5N(0.25kgf) 0°C~90°C~0°C;Bend 3times		3 time	0/10
ESD Test	ESD TEST	AEC (Q101002)	Human body model 1000v		-----	0/10

Items marked with * are selective.

Failure Criteria

Item	Symbol	Test Condition	Criteria for Judgment	
			min	Max
Forward Voltage	VF	IF = 20 mA	-----	Initial Data x 1.1
Reverse Current	IR	VR = 5 V	-----	100 A
Luminous Flux/Intensity	/IV	IF = 20 mA	Initial Data x 0.7 (Total degradation) Initial Data x 0.5 (Single lamp degradation)	
