



# Snowdragon Industrial Co.,Ltd

## DATA SHEET

MODEL No : SD358GWY-0-SH-D

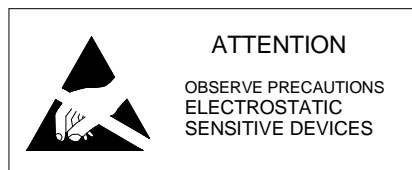
ENG. No:

Description:

- 358 Square lamp
- Lens Color: Diffused
- Emitting Color: Green
- Viewing Angle :120°
- No Stopper

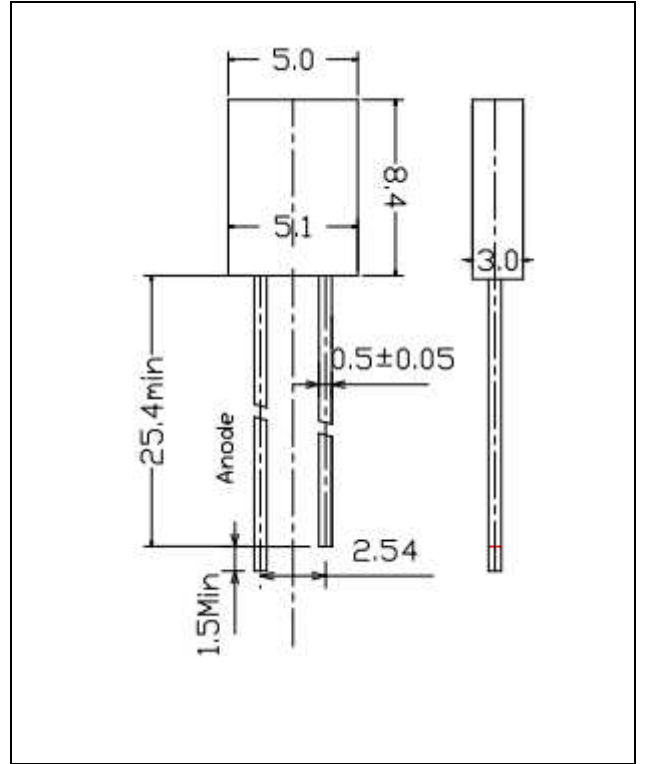
Dice Material: AlGaInP

PREPARED BY	CHECKED BY	APPROVED BY
<b>CUSTOMER APPROVED SIGNATURES</b>		



**Absolute Maximum Ratings at Ta = 25°C**

Items	Symbol	Absolute maximum Rating	Unit
Forward Current	I <sub>F</sub>	25	mA
Peak Forward Current*	I <sub>FP</sub>	100	mA
Reverse Voltage	V <sub>R</sub>	5	V
Power Dissipation	P <sub>D</sub>	100	mW
Operation Temperature	T <sub>opr</sub>	-20 ~ +75	°C
Storage Temperature	T <sub>stg</sub>	-30 ~ +80	°C
Lead Soldering Temperature	T <sub>sol</sub>	Max.260°C for 3 sec Max. (3mm from the base of the epoxy bulb)	



\*pulse width ≤ 0.1msec duty ≤ 1/10

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

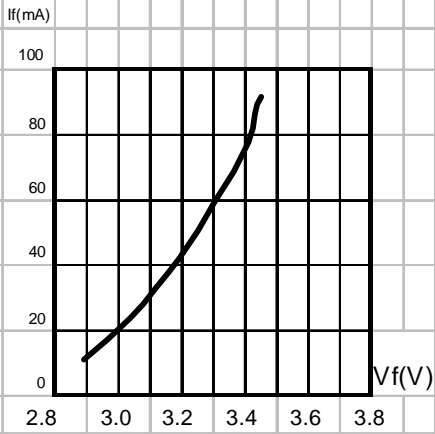
Items	Symbol	Condition	Min.	Typ.	Max.	Unit
Forward Voltage	-	I <sub>F</sub> = 20mA	3.0	3.2	3.4	V
Reverse Current	-	V <sub>R</sub> = 5V	---	---	10	μA
Wavelength	-	I <sub>F</sub> = 20mA	---	517		nm
Luminous Intensity	-	I <sub>F</sub> = 20mA	850	900	950	mcd
50% Power Angle	-	I <sub>F</sub> = 20mA	---	120	---	deg
	-	I <sub>F</sub> = 20mA	---	---	---	deg

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

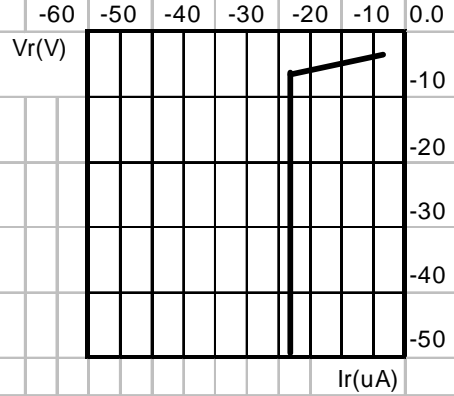
**Important Notes:**

- 1) All ranks will be included per delivery, rank ratio will be determined by Snowdragon
- 2) Tolerance of measurement of luminous intensity is ±15%.
- 3) Tolerance of measurement of dominant wavelength is ±1 nm.
- 4) Tolerance of measurement of Vf is ±0.05 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.

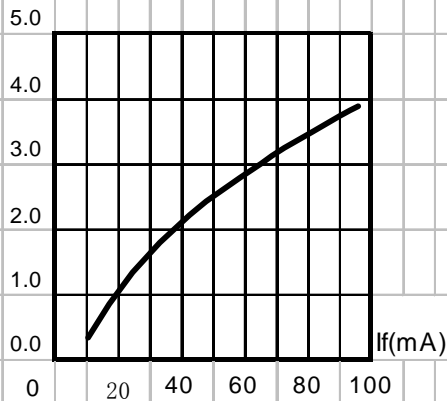
**Typical Optical-Electronic Characteristic Curves**



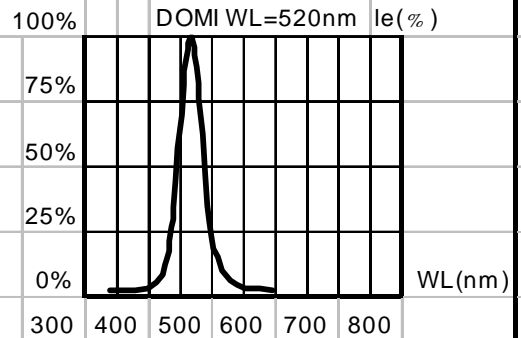
**FORWARD CURRENT V S .  
FORWARD VOLTAGE**



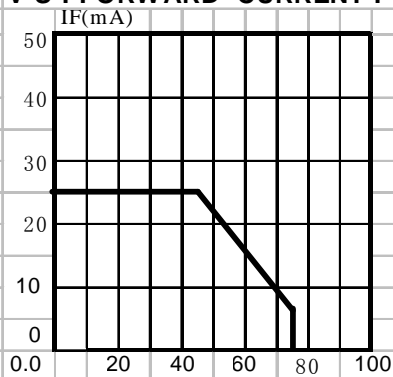
**REVERSE CURRENT V S .  
REVERSE VOLTAGE**



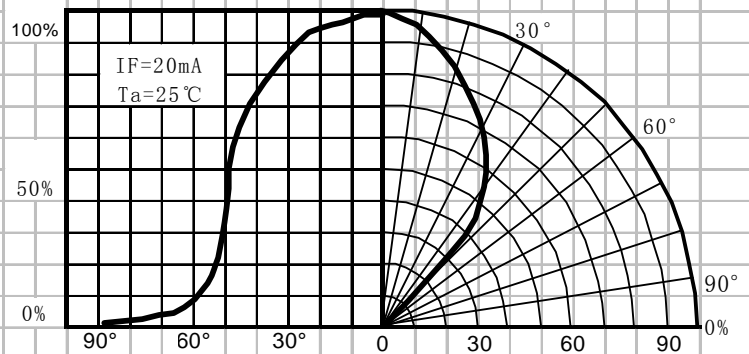
**RELATIVE LUMINOUS INTENSITY  
V S . FORWARD CURRENT .**



**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)	