



Snowdragon Industrial Co.,Ltd

DATA SHEET

MODEL No : **SDP358YWX-0-SI-Q**

ENG. No:

Description:

■ **358 Rectangular lamp**

■ **Lens Color: Diffused**

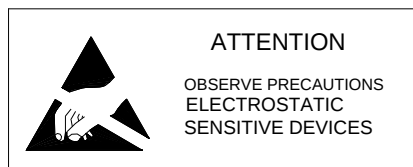
■ **Emitting Color: Yellow**

■ **Viewing Angle :120°**

■ **No Stopper**

Dice Material: **AlGaInP**

PREPARED BY	CHECKED BY	APPROVED BY
CUSTOMER APPROVED SIGNATURES		



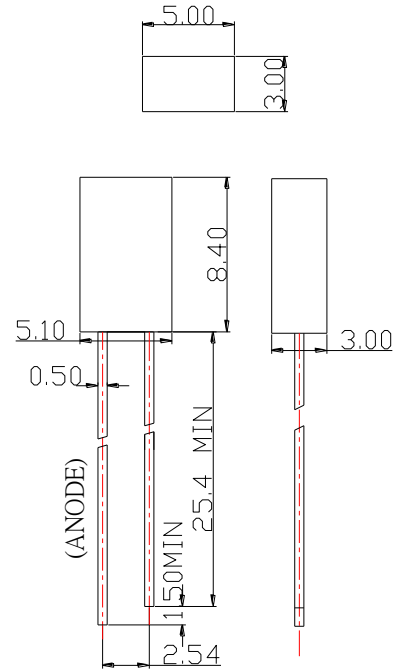
.Model No.	SDP358YWX-0-SI-Q
:Revision :	

Applications:

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)	

Dimension Drawing



.Model No.	SDP358YWX-0-SI-Q
:Revision :	

*pulse width <=0.1msec duty <=1/10

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

Items	Symbol	Condition	Min.	Typ.	Max.	Unit
Forward Voltage	V_F	$I_F = 20\text{mA}$	1.9	2.2	2.6	V
Reverse Current	I_R	$V_R = 5\text{V}$	---	---	10	μA
Wavelength	WD	$I_F = 20\text{mA}$	590	---	593	nm
Luminous Intensity	I_V	$I_F = 20\text{mA}$	--	100	--	mcd
50% Power Angle	$2\theta_{\frac{1}{2}}\text{H-H}$	$I_F = 20\text{mA}$	---	120	---	deg
	$2\theta_{\frac{1}{2}}\text{V-V}$	$I_F = 20\text{mA}$	---	---	---	deg

Rank	Luminous Intensity(mcd)	Rank	Luminous Intensity(mcd)	Rank	Luminous Intensity(mcd)
<i>I</i>	<i>I</i>	<i>I</i>	<i>I</i>	<i>I</i>	<i>I</i>

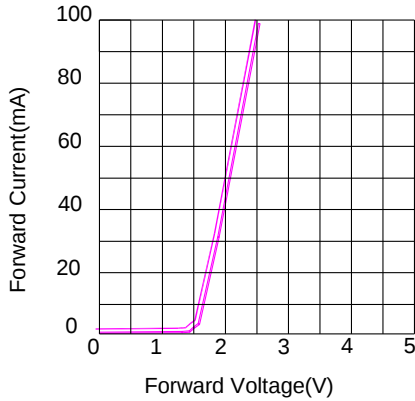
Important Notes:

- 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 V_f 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.

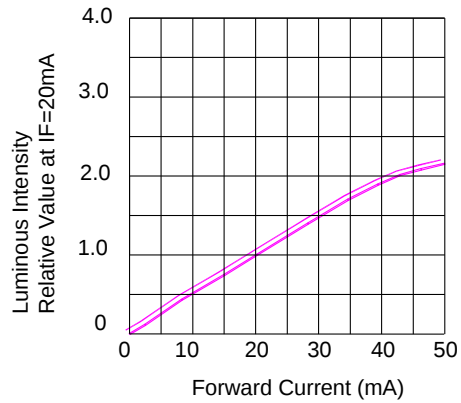
.Model No.	SDP358YWX-0-SI-Q
:Revision :	

Typical Electro-Optical Characteristics Curves

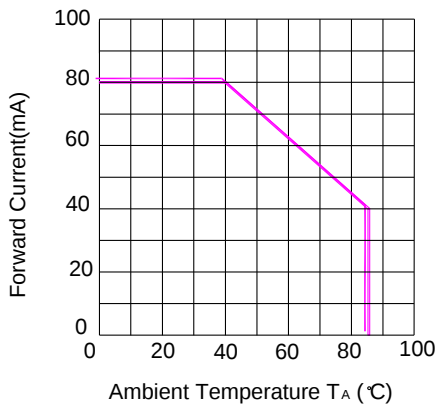
Relative Luminous Intensity vs Forward Current, $T_{Ambient}=25^{\circ}\text{C}$



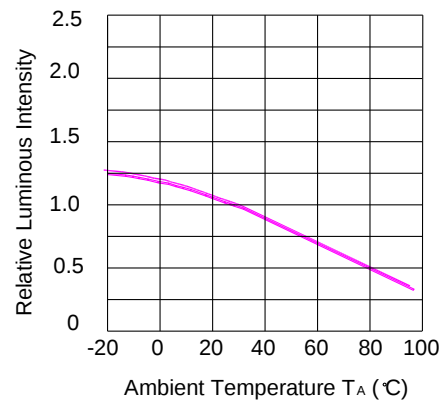
Relative Luminous Intensity vs Forward Current, $T_{Ambient}=25^{\circ}\text{C}$



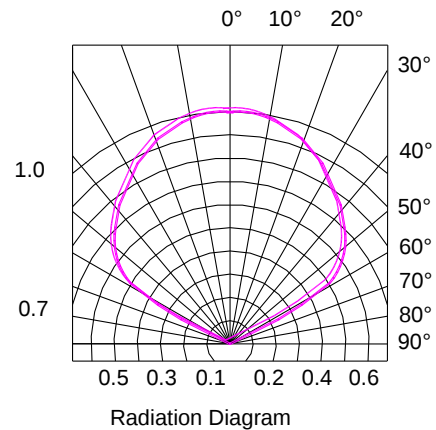
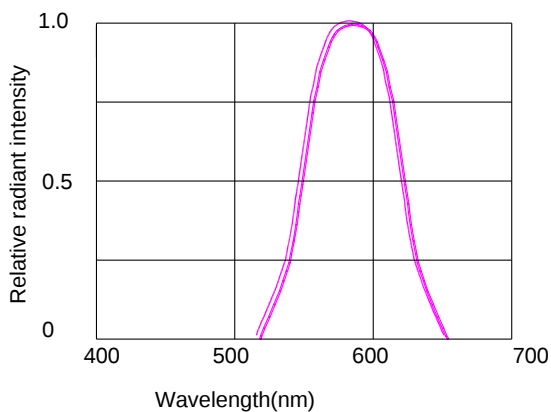
Forward Current Derating Curve, Derating based on $T_{jMAX}=85^{\circ}\text{C}$



Luminous Intensity VS Ambient Temperature



Relative Spectral Distribution, $I_F=20\text{mA}$, $T_{Ambient}=25^{\circ}\text{C}$



.Model No.	SDP358YWX-0-SI-Q
:Revision :	

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℃~25℃~80℃~25℃ 30min,5min,30min,5min	-40℃~25℃~100℃~25℃ 30min,5min,30min,5min	100 cycles	0/100
	Thermal shock	MIL-STD-202G	-20℃~80℃ 30min, 30min	-40℃~100℃ 30min, 30min	100 cycles	0/100
	High Temperature Storage(*)	JIS C7021 (1977)B10	Ta=80℃	Ta=100℃	1000Hrs	0/100
	Low Temperature Storage	JIS C7021 (1977)B12	Ta=-30℃	Ta=-40℃	1000Hrs	0/100
Operation Sequence	Life test	JIS C7035 (1985)	Ta=25℃ If=25mA	Ta=25℃ If=25mA	1000Hrs	0/100
	High humidity Heat life test	-----	60℃ RH=90% If=20mA	60℃ RH=90% If=20mA	500Hrs	0/100
	Low temperature Life test	-----	Ta=-20℃ If=20mA	Ta=-30℃ If=20mA	1000Hrs	0/100
Destructive Sequence	Resistance to solderingHeat	JIS C7021 (1977)A11	Tsol=260±5℃ ,10sec. (3mm from the base of the epoxy bulb)		1 time	0/20
	Solder ability	JIS C7021 (1977)A2	Tsol=235±5℃ ,5sec. (using flux)		1 time (over95 %)	0/20
	Lead Pull/Bend Test	JIS C7021 (1977)A11	Load 2.5N(0.25kgf) 0℃~90℃~0℃;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	Symboi	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)	-----