



MODEL NO: 11-22 SURSYGC/S530-A2/TR8

Device Number : DSE-112-019 REV. 1.0

Chip LEDs with Bi-Color(Multi-Color)

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Features :

- Package in 8mm tape on 7" diameter reel .
- Compatible with automatic placement equipment.
- Compatible with infrared and vapor phase reflow solder process.
- Multi-color type.

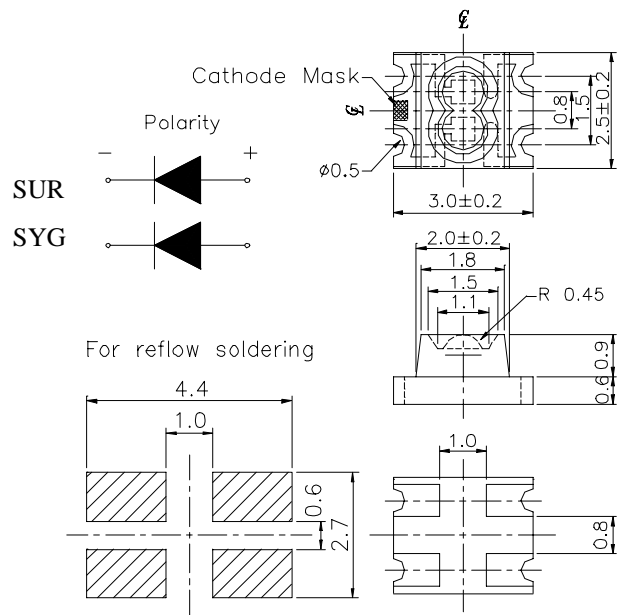
Description :

- The 11-22 SMD Taping is much smaller than leaded components, thus enable smaller board size, higher packing density, reduced storage space and finally smaller equipment to be obtained.
- Besides, light Weight makes them ideal for miniature application, etc.

Applications :

- Automotive: backlighting in dashboard and switch
- Telecommunication: indicator and backlighting in telephone and fax.
- Flat backlight for LCD, switch and symbol.
- General use.

Package Dimension :



Notes :

Tolerances Unless Dimension \pm 0.1mm

PART NO	CHIP		Lens Color
	Material	Emitted Color	
11-22SURSYGC/S530-A2/TR8	SUR:	AlGaInP	Hyper Red
	SYG:	AlGaInP	Super Green
			Water Clear

Office : NO 25,Lane.76,Chung Yang Rd.,Sec.3,

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TEL : 886-2-2267-2000,2266-9936(22 Lines)

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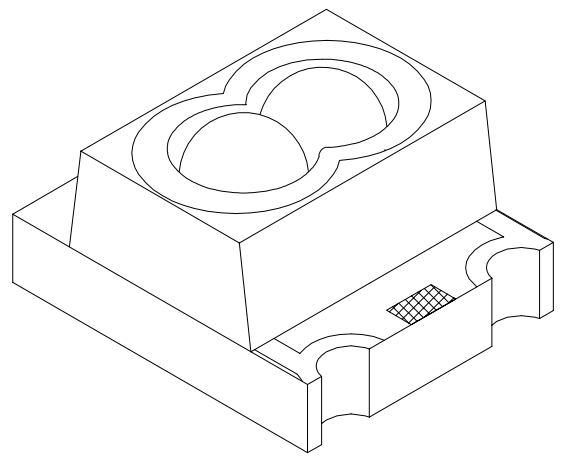
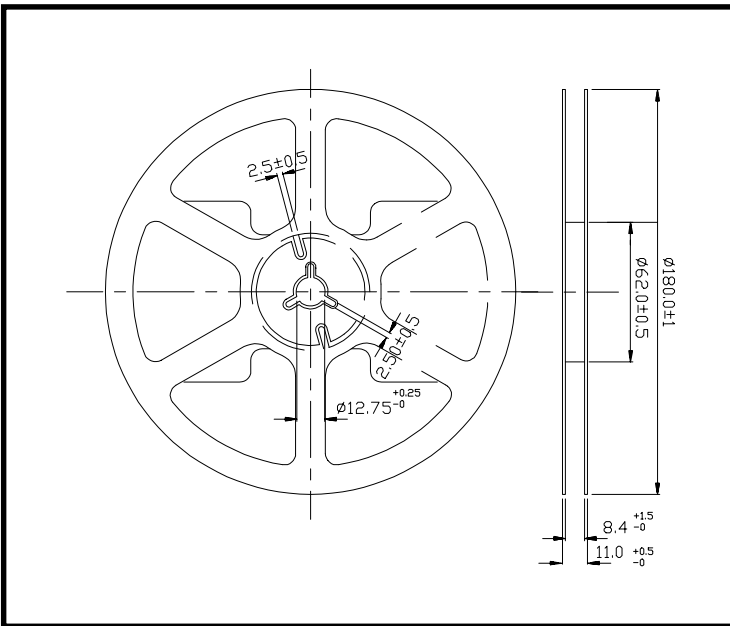
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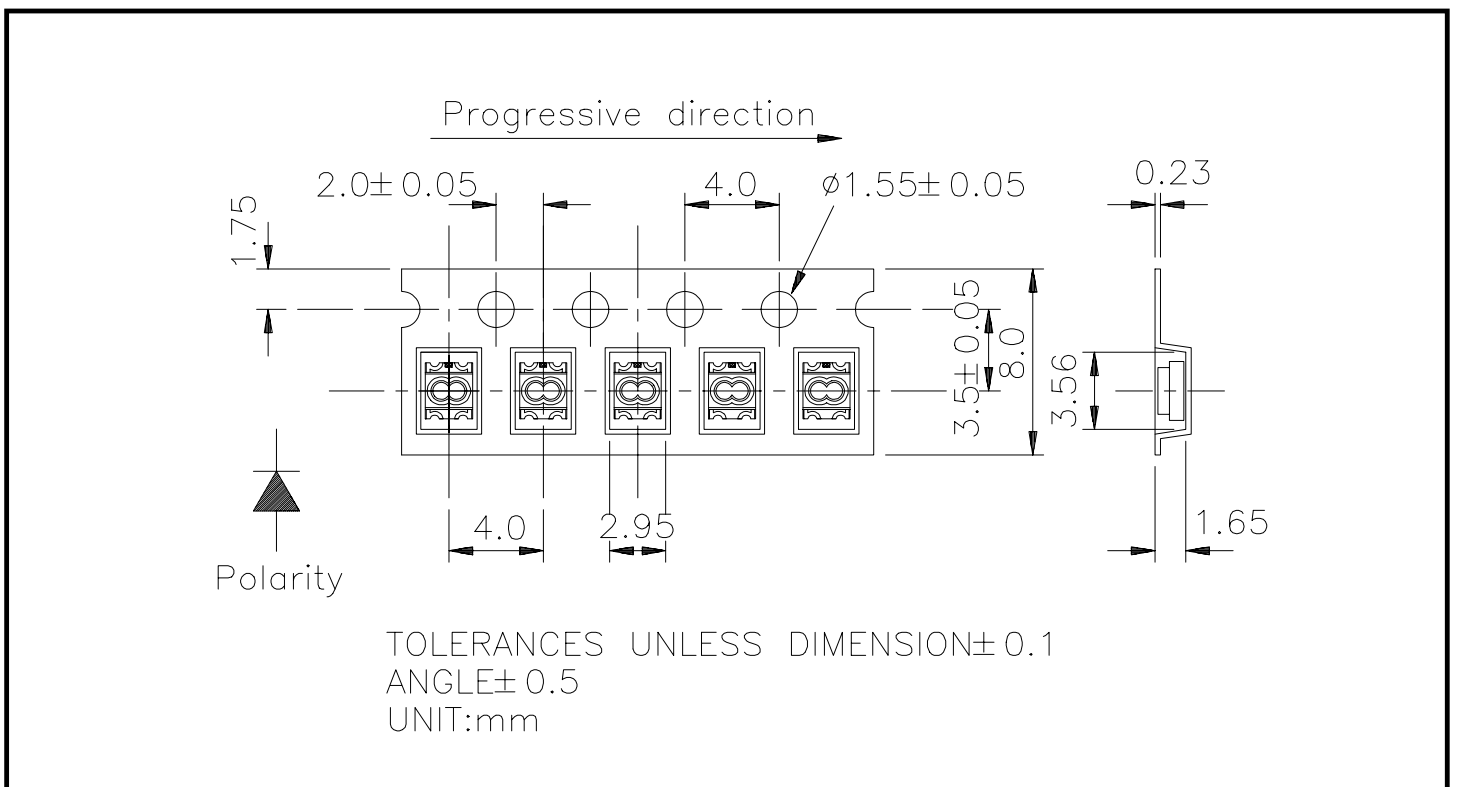
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■ Package Dimension :



■ Loaded quantity per reel 2000 pcs/reel :





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

Parameter	Symbol	Rating	Unit
Reverse Voltage	Vr	5	V
Forward Current	If	SUR: 25 SYG: 25	mA
Operating Temperature	Topr	-40 ~ +85	°C
Storage Temperature	Tstg	-40 ~ +90	°C
Soldering Temperature	Tsol	260 (for 5 second)	°C
Power Dissipation	Pd	SUR: 60 SYG: 60	mW
Peak Forward Current(Duty 1/10 @ 1KHZ)	If(Peak)	SUR: 160 SYG: 160	mA

■ **Reliability Test Item And Condition**

NO	Item	Test Conditions	Test Hours/Cycle	Sample Size	Ac/Re
1	Solder Heat	TEMP : 260°C ± 5 °C	5 SEC	76 Pcs	0/1
2	Temperature Cycle	H : +85°C 30min ∫ 5 min L : -55°C 30min	50 CYCLE	76 Pcs	0/1
3	Thermal Shock	H : +100°C 5min ∫ 10 sec L : -10°C 5min	50 CYCLE	76 Pcs	0/1
4	High Temperature Storage	TEMP : 100°C	1000 HRS	76 Pcs	0/1
5	Low Temperature Storage	TEMP : -55°C	1000 HRS	76 Pcs	0/1
6	DC Operating Life	If = 20 m A	1000 HRS	76 Pcs	0/1
7	High Temperature / High Humidity	85°C/85% RH	1000 HRS	76 Pcs	0/1



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Electronic Optical Characteristics :

Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition
Luminous intensity	Iv SUR: SYG:	21	51	-----	mcd	If=20mA
		14	21			
Viewing Angle	2θ 1/2	-----	60	-----	deg	If=20mA
Peak Wavelength	λp SUR: SYG:	-----	632	-----	nm	If=20mA
		-----	575			
Dominant Wavelength	λd SUR: SYG:	-----	624	-----	nm	If=20mA
		-----	573			
Spectrum Radiation Bandwidth	Δλ SUR: SYG:	-----	20 20	-----	nm	If=20mA
Forward Voltage	Vf SUR: SYG:	-----	2.0	2.4	V	If=20mA
		-----	2.0	2.4		
Reverse Current	Ir	-----	-----	10	μA	Vr=5V

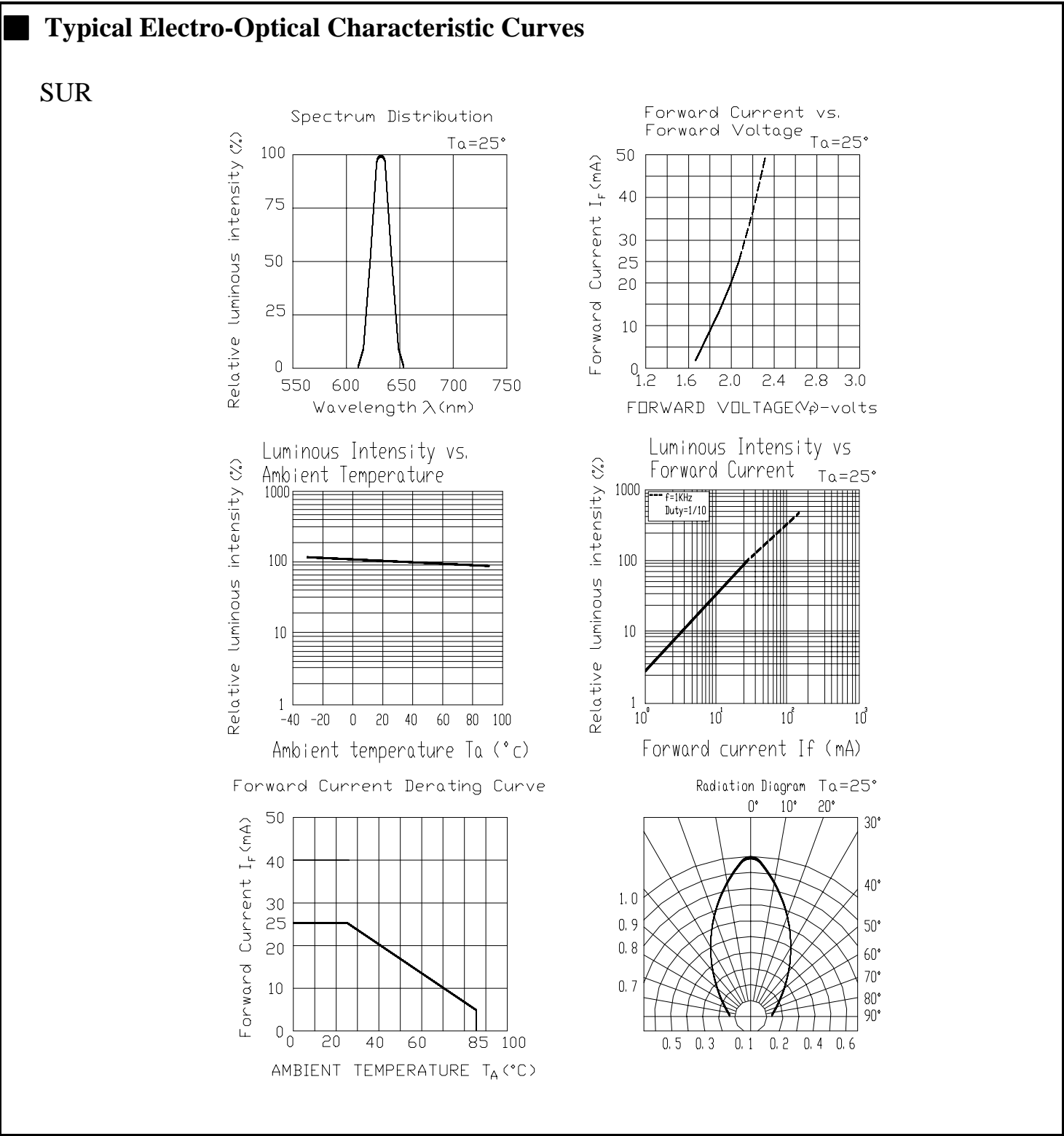


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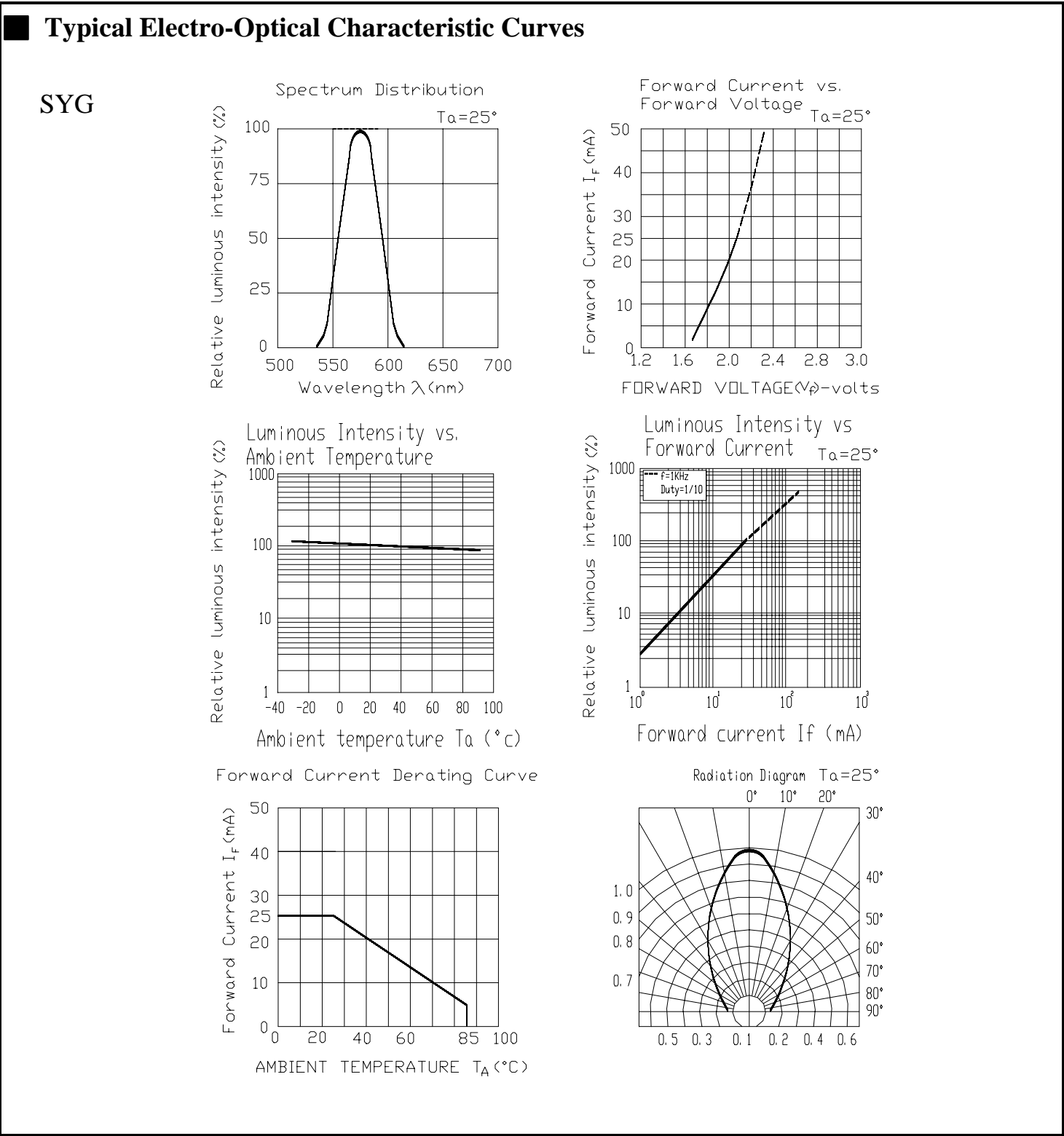


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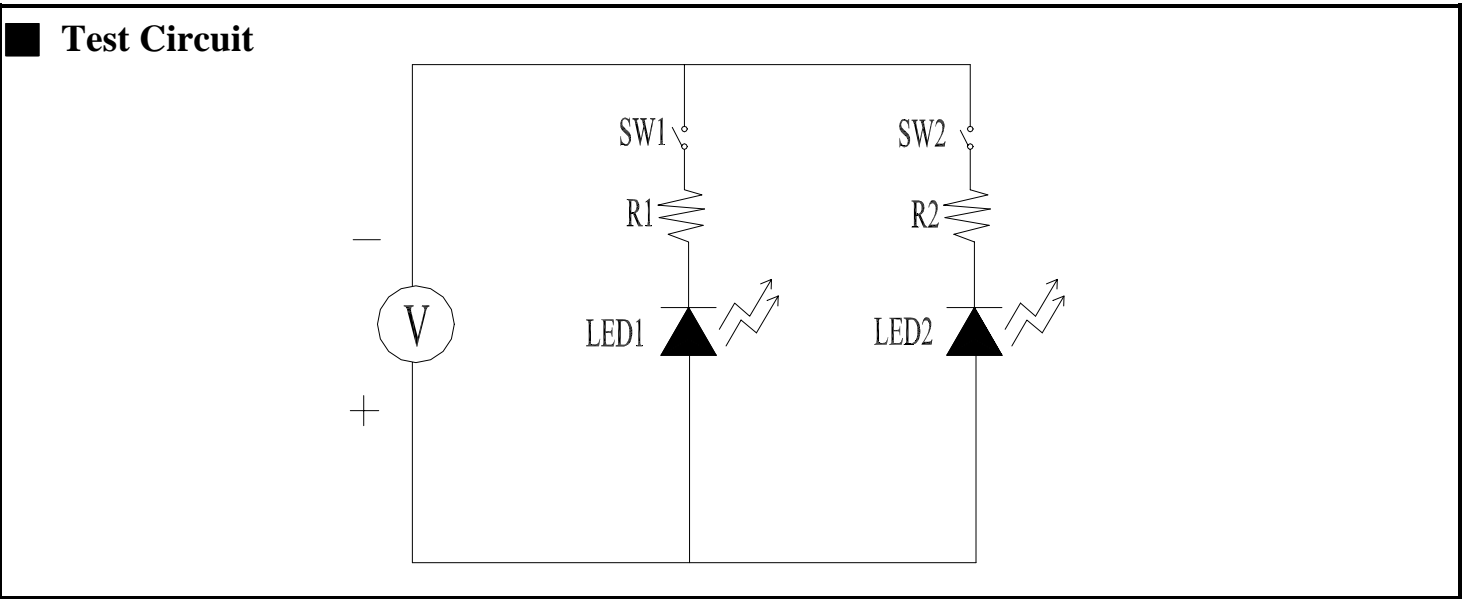


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■ **Precautions For Use**

1. Over-current-proof

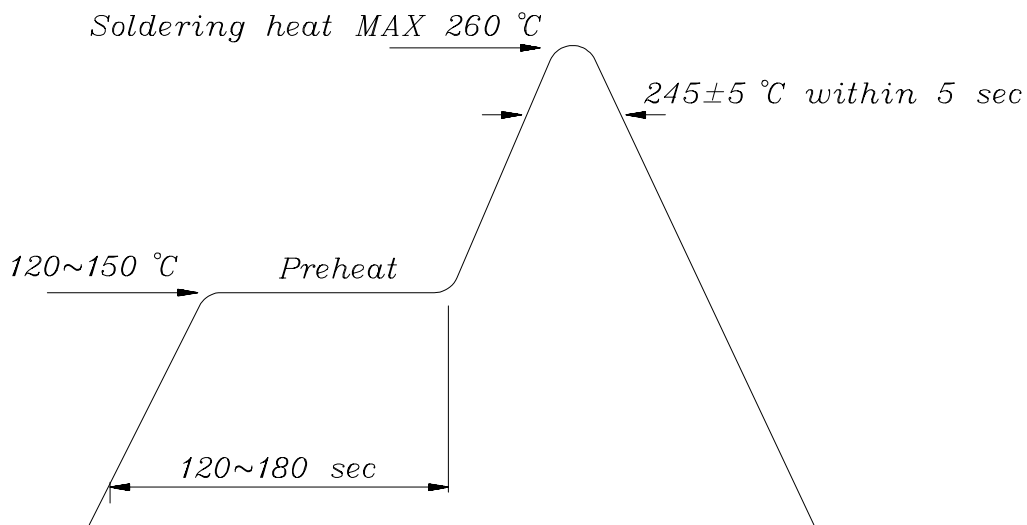
Customer must apply resistors for protection , otherwise slight voltage shift will cause big current change (Burn out will happen).

2. Storage time

- 2.1 The operation of temperature and R.H. are : $5^{\circ}\text{C} \sim 35^{\circ}\text{C}$, R.H.60%.
- 2.2 Once the package is opened , the products should be used within a week. Otherwise , they should be keep in a dampproof box with desiccants. Considering the tape life , we suggest our customers to use our products within a year(from production date).
- 2.3 If opened more than one week in an atmosphere $5^{\circ}\text{C} \sim 35^{\circ}\text{C}$, R.H.60% , they should be treated at $60^{\circ}\text{C} \pm 5^{\circ}\text{C}$ for 15hrs.
- 2.4 When you discover that the desiccant in the package has a pink color (normal=blue) , you should treat them in the same conditions as 2.3.

■ **Soldering heat reliability (DIP)**

Please refer to the following figure :

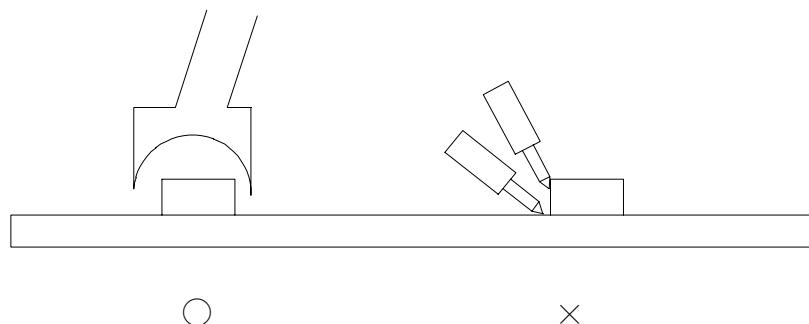


■ **Soldering Iron**

Basic spec is ≤ 5 sec when 260°C. If temperature is higher, time should be shorter (+10°C → -1sec). Power dissipation of iron should be smaller than 15 W , and temperature should be controllable. Surface temperature of the device should be under 230 °C .

■ **Rework**

1. Customer must finish rework within 5 sec under 260°C .
2. Copper foil can not be touched by the head of iron.
3. Twin-head type is preferred.





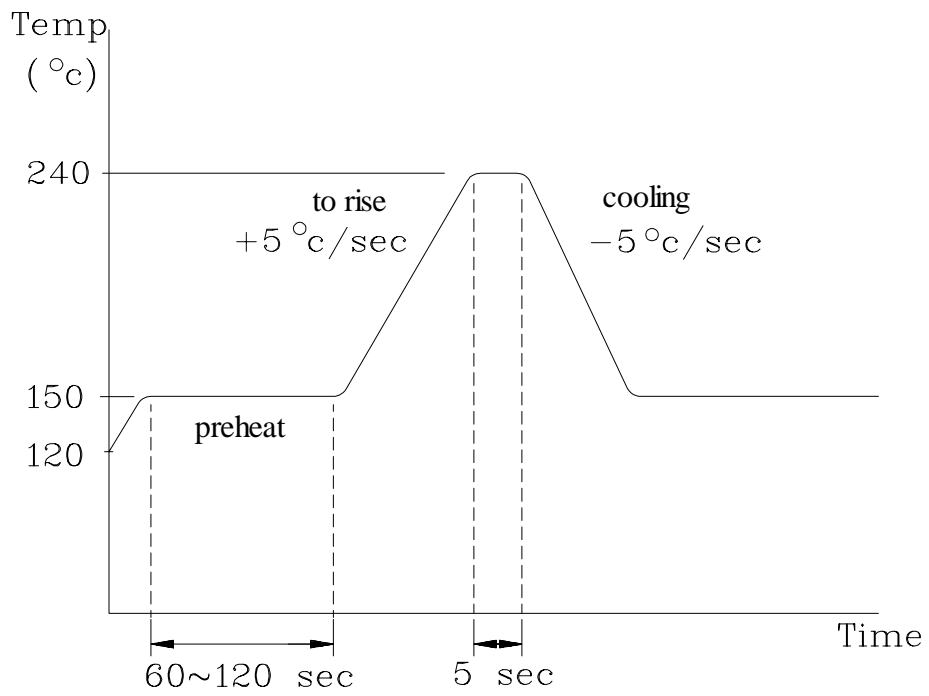
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■ Reflow Temp / Time :



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