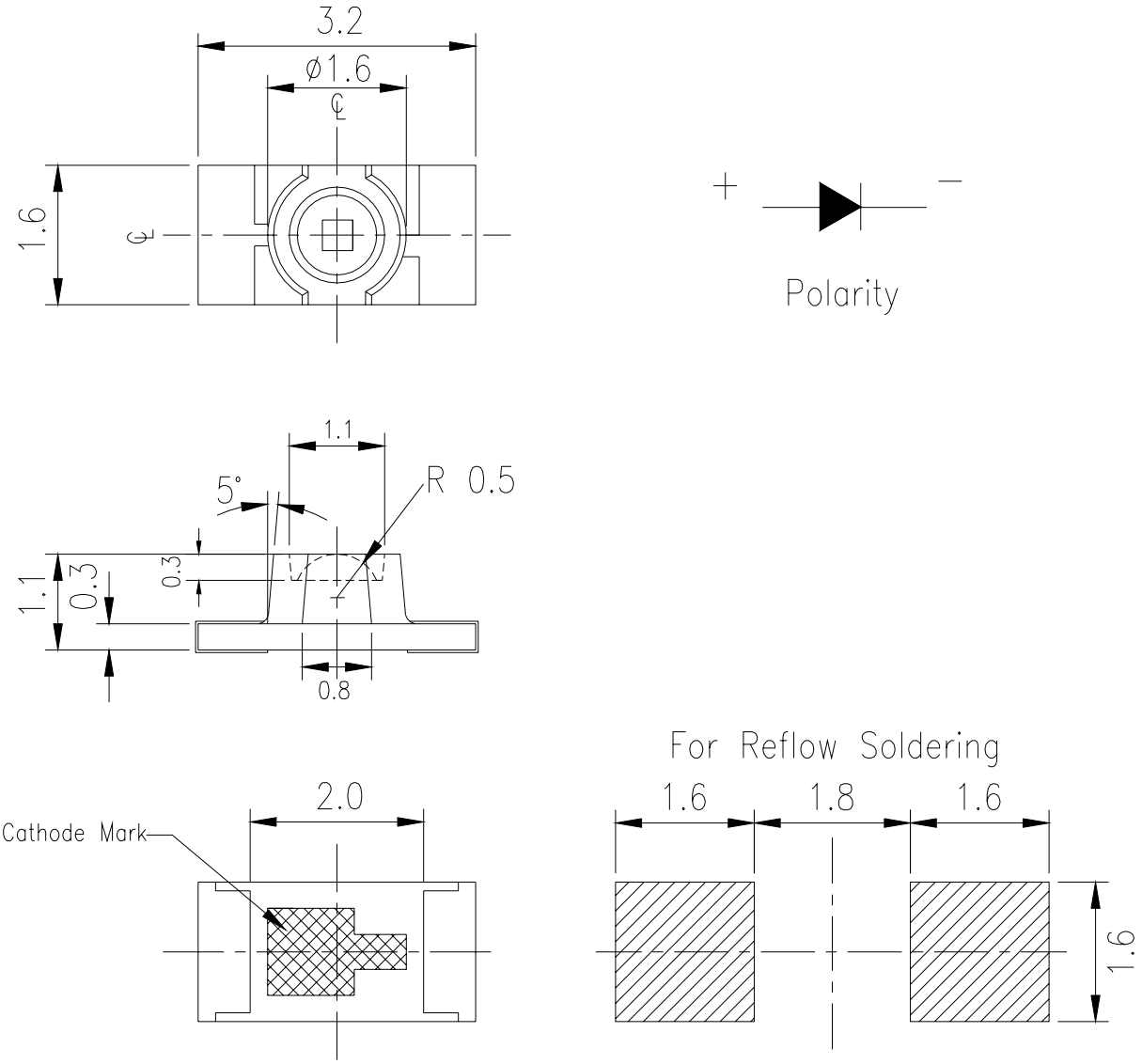
Package Outline Dimensions



Notes: Tolerances Unless Dimension ±0.1mm, Unit = mm

25-21SYGC/S530-XX/TR8

Absolute Maximum Ratings (Ta=25℃)

Parameter	Symbol	Rating	Unit
Reverse Voltage	V_R	5	V
Forward Current	I_F	25	mA
Operating Temperature	Topr	-40 ~ +85	℃
Storage Temperature	Tstg	-40~ +90	℃
Electrostatic Discharge(HBM)	ESD	2000	V
Power Dissipation	Pd	60	mW
Peak Forward Current (Duty 1/10 @1KHz)	I_F	160	mA
Soldering Temperature	Tsol	Reflow Soldering : 260 ℃ for 10 sec. Hand Soldering : 350 ℃ for 3 sec.	

Electro-Optical Characteristics (Ta=25℃)

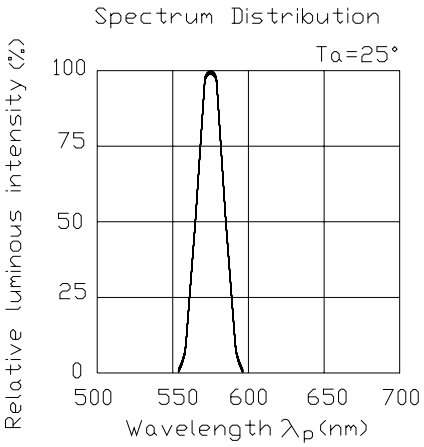
Parameter	Symbol	*Chip Rank	Min.	Typ.	Max.	Unit	Condition
Luminous Intensity	Iv	E1	12	18	-----	mcd	I_F=20 mA
		E2	18	24	-----		
		E3	24	32	-----		
		E4	32	38	-----		
Viewing Angle	2θ 1/2	-----	-----	60	-----	deg	I_F=20mA
Peak Wavelength	λ p	-----	-----	575	-----	nm	I_F=20mA
Dominant Wavelength	λ d	-----	-----	573	-----	nm	I_F=20mA
Spectrum Radiation Bandwidth	$\triangle\lambda$	-----	-----	20	-----	nm	I_F=20mA
Forward Voltage	V_F	-----	1.7	2.0	2.4	V	I_F=20mA
Reverse Current	I_R	-----	-----	-----	10	μA	V_R=5V

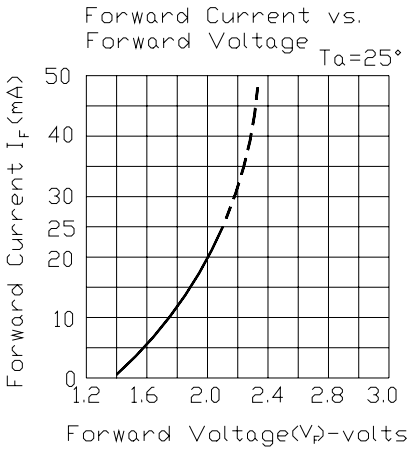
*25-21SYGC/S530-XX/TR8

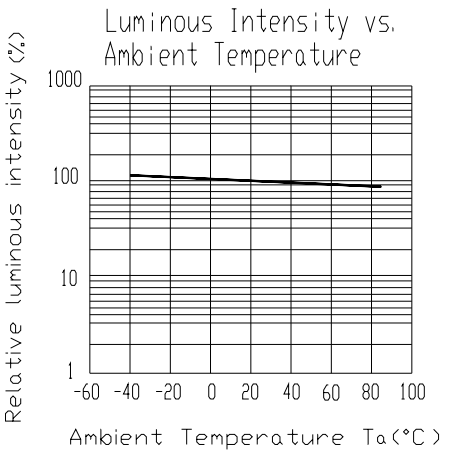
Chip Rank

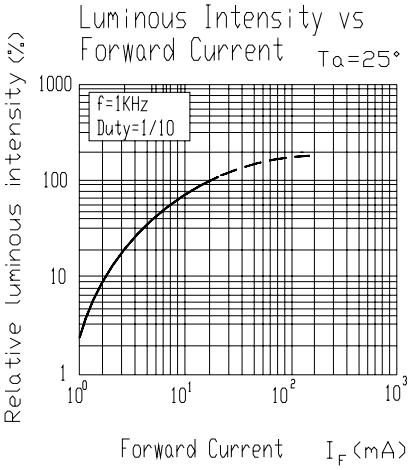
25-21SYGC/S530-XX/TR8

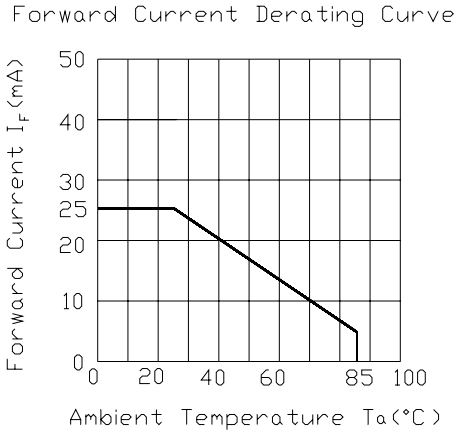
Typical Electro-Optical Characteristics Curves

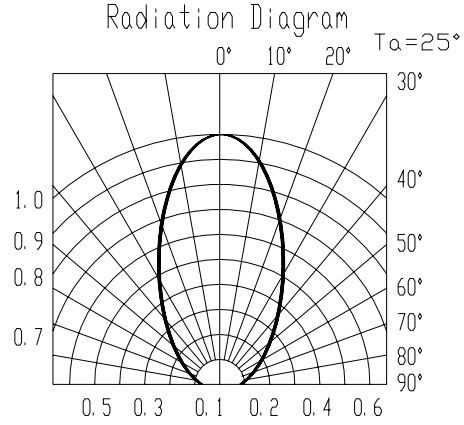












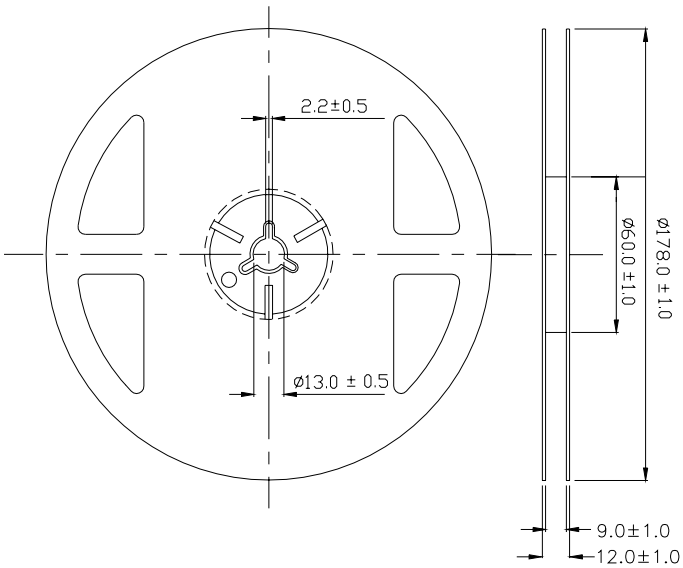
25-21SYGC/S530-XX/TR8

CAT: Luminous Intensity Rank

HUE: Dom. Wavelength Rank

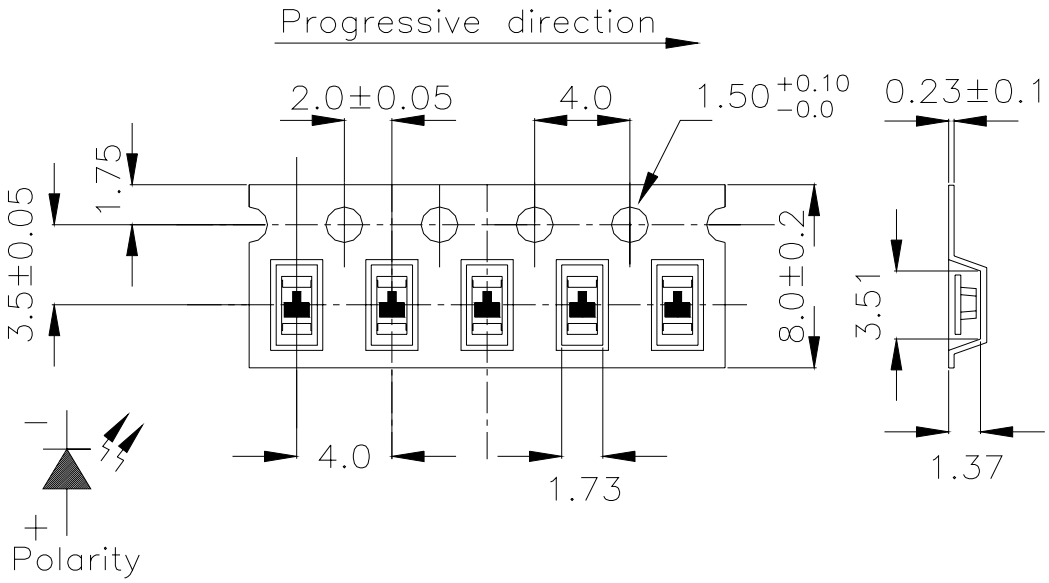
REF: Forward Voltage Rank

Reel Dimensions



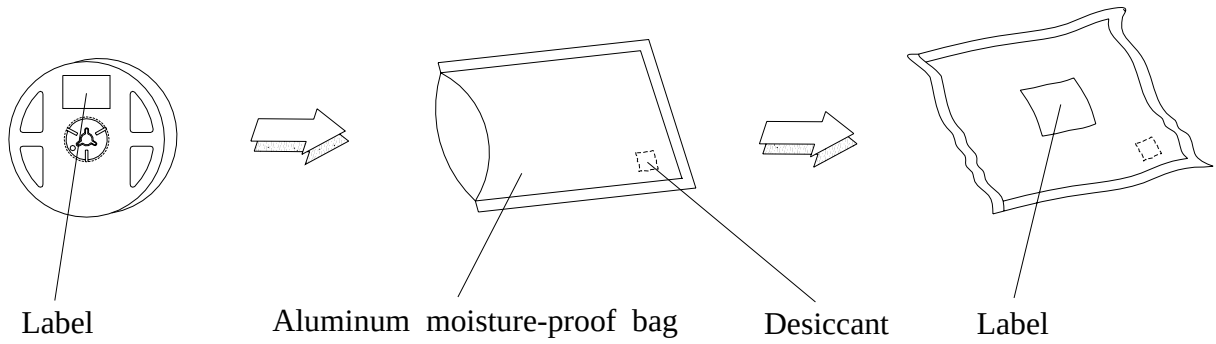
Note: The tolerances unless mentioned is ±0.1mm ,Unit = mm

Carrier Tape Dimensions: Loaded quantity 2000 PCS per reel



Note: The tolerances unless mentioned is ±0.1mm ,Unit = mm

Moisture Resistant Packaging



Reliability Test Items And Conditions

The reliability of products shall be satisfied with items listed below.

Confidence level : 90 %

LTPD : 10 %

No.	Items	Test Condition	Test Hours/Cycles	Sample Size	Ac/Rc
1	Reflow	Temp. : 240℃±5℃ Min. 5 sec.	6 min.	22 Pcs.	0/1
2	Temperature Cycle	H : +85℃ 30min. ∫ 5 min. L : -55℃ 30min.	50 Cycles	22 Pcs.	0/1
3	Thermal Shock	H : +100℃ 5min. ∫ 10 sec. L : -10℃ 5min.	50 Cycles	22 Pcs.	0/1
4	High Temperature Storage	Temp. : 100℃	1000 Hrs.	22 Pcs.	0/1
5	Low Temperature Storage	Temp. : -55℃	1000 Hrs.	22 Pcs.	0/1
6	DC Operating Life	I_F = 20 mA	1000 Hrs.	22 Pcs.	0/1
7	High Temperature / High Humidity	85℃/R.H85%	1000 Hrs.	22 Pcs.	0/1

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

2.1 Do not open moisture proof bag before the products are ready to use.

2.2 Before opening the package, the LEDs should be kept at 30℃ or less and 90%RH or less.

2.3 The LEDs should be used within a year.

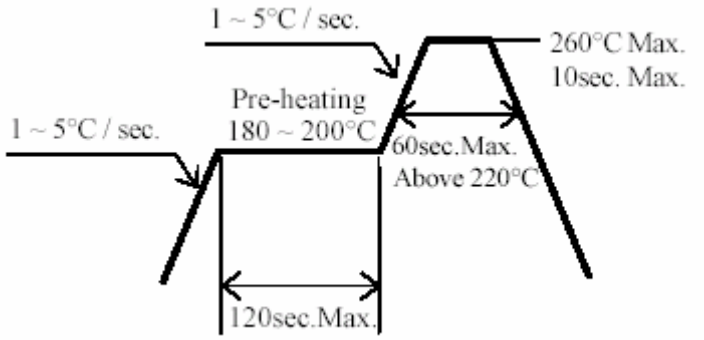
2.4 After opening the package, the LEDs should be kept at 30℃ or less and 60% RH or less.

2.5 The LEDs should be used within 168 hours (7 days) after opening the package.

2.6 If the moisture absorbent material (silica gel) has faded away or the LEDs have exceeded the storage time, baking treatment should be performed using the following conditions.
Baking treatment : 60±5℃ for 24 hours.

3. Soldering Condition

3.1 Pb-free solder temperature profile



3.2 Reflow soldering should not be done more than two times.

3.3 When soldering, do not put stress on the LEDs during heating.

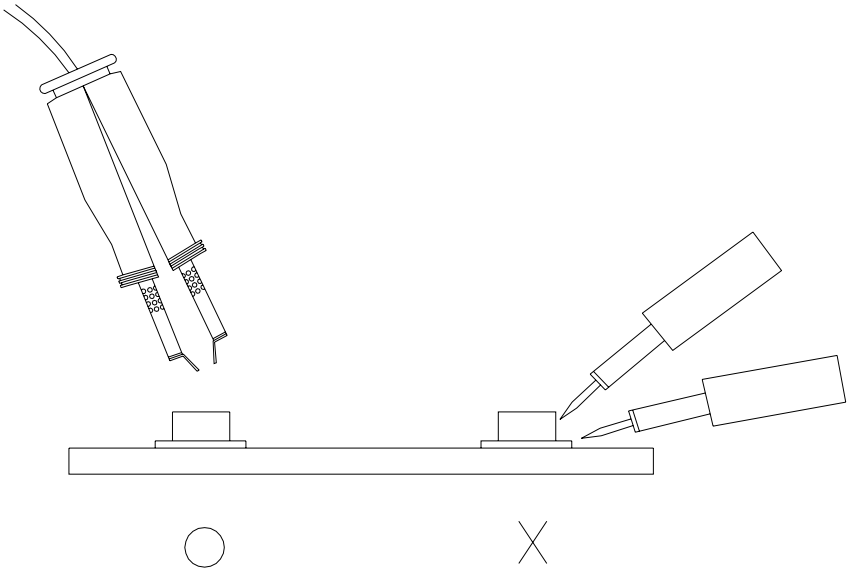
3.4 After soldering, do not warp the circuit board.

4.Soldering Iron

Each terminal is to go to the tip of soldering iron temperature less than 350℃ for 3 seconds within once in less than the soldering iron capacity 25W. Leave two seconds and more intervals, and do soldering of each terminal. Be careful because the damage of the product is often started at the time of the hand solder.

5.Repairing

Repair should not be done after the LEDs have been soldered. When repairing is unavoidable, a double-head soldering iron should be used (as below figure). It should be confirmed beforehand whether the characteristics of the LEDs will or will not be damaged by repairing.



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