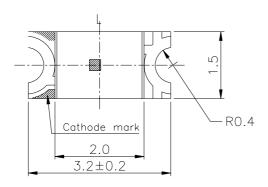
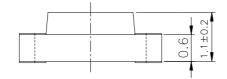


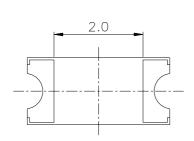
Package Outline Dimensions

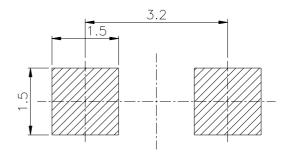






For reflow soldering (propose)





Note: Tolerances Unless Dimension is ± 0.1 mm, Unit = mm

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Absolute Maximum Ratings (Ta=25°C)

Parameter	Symbol	Rating	Unit	
Reverse Voltage	VR	5	V	
Forward Current	IF	25	mA	
Operating Temperature	Topr	-40 ~ +85	$^{\circ}\!\mathbb{C}$	
Storage Temperature	Tstg	-40~ +90	$^{\circ}\!\mathbb{C}$	
Electrostatic Discharge(HBM)	ESD	2000	V	
Power Dissipation	Pd	60	mW	
Peak Forward Current (Duty 1/10 @1KHz)	IF	60	mA	
Soldering Temperature	Tsol	Reflow Soldering: 260 °C for 10 sec. Hand Soldering: 350 °C for 3 sec.		

Electro-Optical Characteristics (Ta=25°C)

Parameter	Symbol	*Chip Rank	Min.	Тур.	Max.	Unit	Condition	
Luminous Intensity	Iv	A2	15	39		mcd deg nm	I=20mA	
		A3	36	57				
		A4	51	77				
		A5	62	98				
		A6	77	113				
Viewing Angle	2 \theta 1/2			130				
Peak Wavelength	λр			591				
Dominant Wavelength	λd			589		nm		
Spectrum Radiation Bandwidth	Δλ			15		nm	1	
Forward Voltage	VF		1.7	2.0	2.4	V		
Reverse Current	Ir				10	μΑ	V _R =5V	

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Chip Rank

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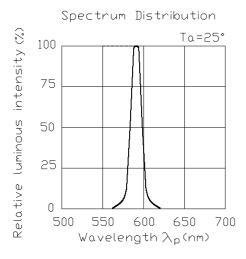
Prepared date: 19-Aug-2005

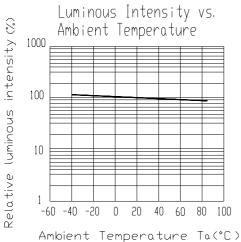


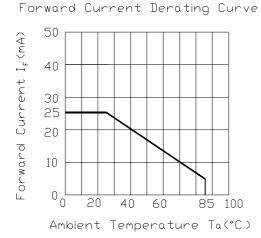
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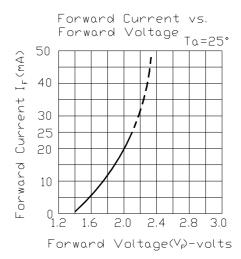
15-21UYC/S530-XX/TR8

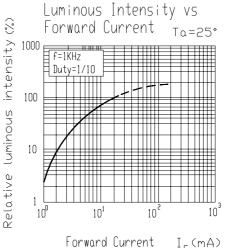
Typical Electro-Optical Characteristics

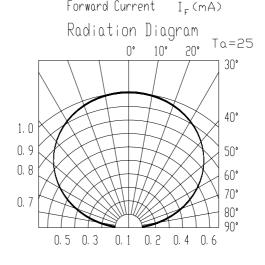












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Label explanation

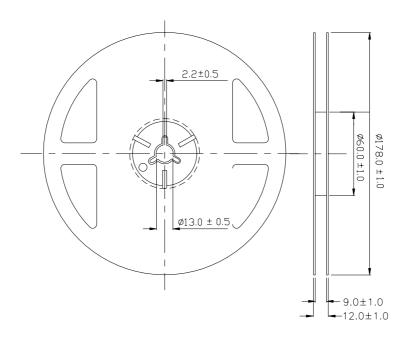
CAT: Luminous Intensity Rank

HUE: Dom. Wavelength Rank

REF: Forward Voltage Rank



Reel Dimensions



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

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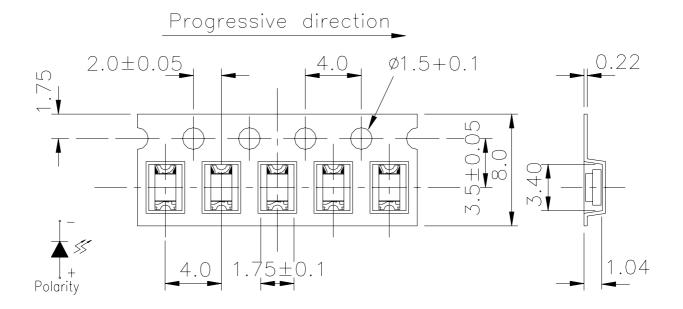
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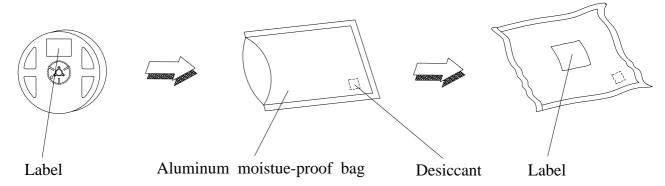


Carrier Tape Dimensions: Loaded quantity 2000 PCS per reel



Note: Tolerances Unless Dimension is ± 0.1 mm, Unit = mm

Moisture Resistant Packaging



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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/Re
1	Reflow Soldering	Temp. : 260°C±5°C 5 sec.	6 Min.	22 Pcs.	0/1
2	Temperature Cycle	$H: +100^{\circ}\mathbb{C}$ 15min \int 5 min $L: -40^{\circ}\mathbb{C}$ 15min	300 Cycles	22 PCS.	0/1
3	Thermal Shock	$H: +100^{\circ}\mathbb{C}$ 5min $\int 10 \sec$ $L: -10^{\circ}\mathbb{C}$ 5min	300 Cycles	22 PCS.	0/1
4	High Temperature Storage	Temp. : 100°C	1000 Hrs.	22 PCS.	0/1
5	Low Temperature Storage	Temp. : -40°℃	1000 Hrs.	22 PCS.	0/1
6	DC Operating Life	$I_F = 20 \text{ mA}$	1000 Hrs.	22 PCS.	0/1
7	High Temperature / High Humidity	85°C/85%RH	1000 Hrs.	22 PCS.	0/1

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Precautions For Use

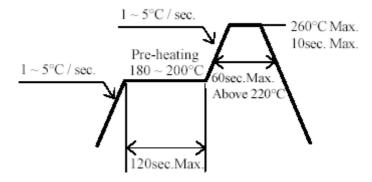
1. Over-current-proof

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

- 2. Storage
 - 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°C 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°C 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 : $60\pm5^{\circ}$ C 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

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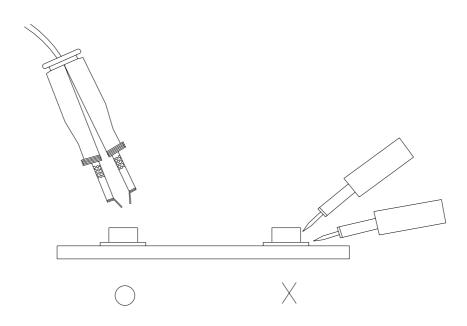
Downloaded from Arrow.com.



Each terminal is to go to the tip of soldering iron temperature less than 350°C 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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