



PART NO.: 19-215 SDRC/S530-A2/TR8 Device Number : DSE-195-030 REV. 1.0

0.6mm Height Flat Top LEDs

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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.
• Mono-color type.

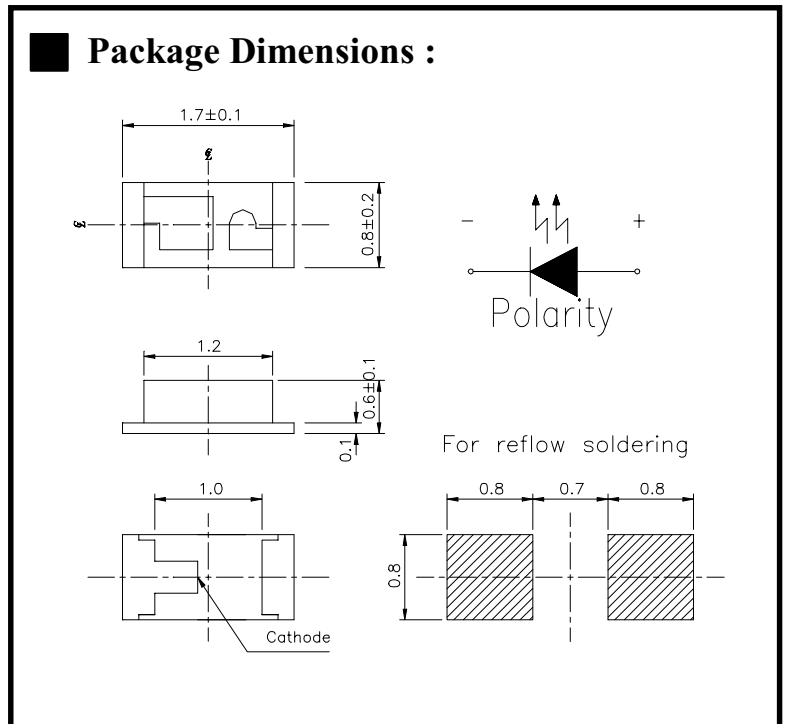
Descriptions :

- The 19-215 SMD Taping is much smaller than lead frame type components, thus enable smaller board size, higher packing density, reduced storage space and finally smaller equipment to be obtained.
• Besides, lightweight makes them ideal for miniature applications, 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 Dimensions :



Notes :

Tolerances Unless Dimension ± 0.1mm
Angle ± 0.5°
Unit = mm

Table with 4 columns: PART NO., Chip (Material, Emitted Color), and Lens Color. Row 1: 19-215 SDRC/S530-A2/TR8, AlGaInP, Super Deep-Red, Water Clear.

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http://www.everlight.com



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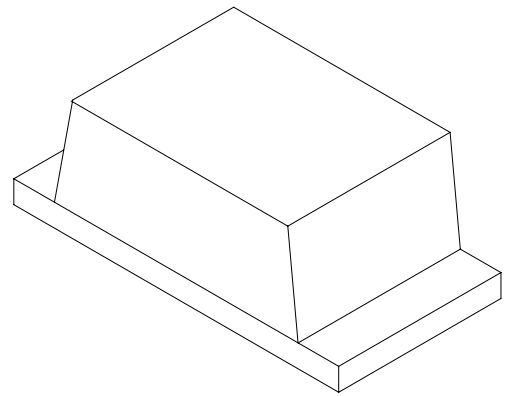
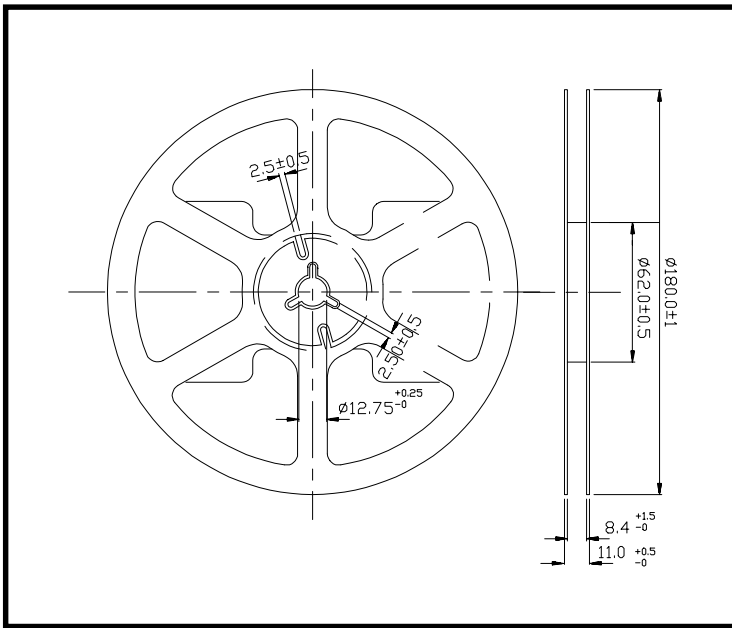
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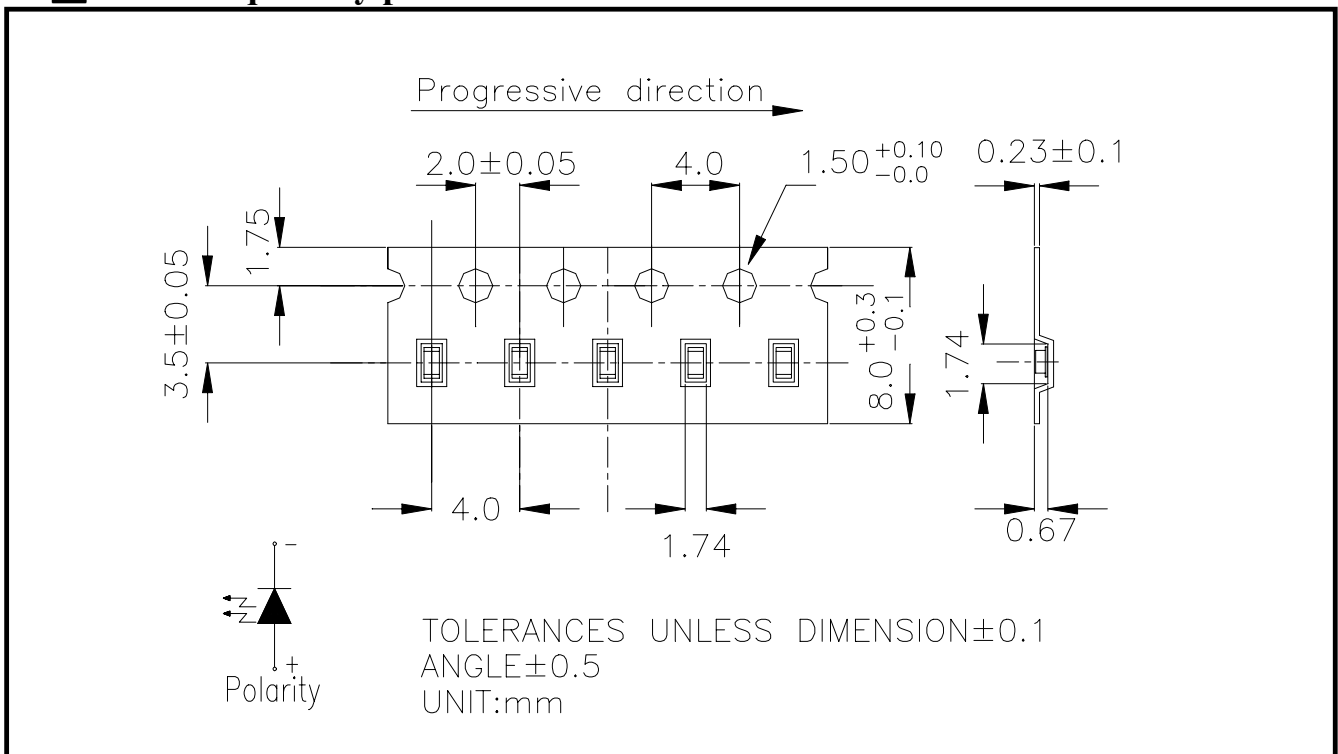
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Package Dimensions :



Loaded quantity per reel 3000 PCS/reel :





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

Parameter	Symbol	Rating	Unit
Reverse Voltage	V _R	5	V
Forward Current	I _F	25	mA
Operating Temperature	T _{opr}	-40 ~ +85	°C
Storage Temperature	T _{stg}	-40 ~ +90	°C
Soldering Temperature	T _{sol}	260 (for 5 second)	°C
Electrostatic Discharge	ESD	2000	V
Power Dissipation	P _d	60	mW
Peak Forward Current(Duty 1/10 @ 1KHz)	I _{F(Peak)}	160	mA

■ **Electronic Optical Characteristics :**

Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition
Luminous Intensity	I _v	-----	2	-----	mcd	I _F =2mA
		14	26	-----		I _F =20mA
Viewing Angle	2θ 1/2	-----	130	-----	deg	I _F =20mA
Peak Wavelength	λ _p	-----	650	-----	nm	I _F =20mA
Dominant Wavelength	λ _d	-----	639	-----	nm	I _F =20mA
Spectrum Radiation Bandwidth	Δλ	-----	20	-----	nm	I _F =20mA
Forward Voltage	V _F	-----	2.0	2.4	V	I _F =20mA
Reverse Current	I _R	-----	-----	10	μA	V _R =5V



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■ Reliability Test Items And Conditions:

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 CYCLES	76 PCS	0/1
3	Thermal Shock	H : +100°C 5min. ∫ 10 sec. L : -10°C 5min.	50 CYCLES	76 PCS	0/1
4	High Temperature Storage	TEMP. : 100°C	1000 HR.	76 PCS	0/1
5	Low Temperature Storage	TEMP. : -55°C	1000 HR.	76 PCS	0/1
6	DC Operating Life	IF = 20 mA	1000 HR.	76 PCS	0/1
7	High Temperature / High Humidity	85°C/RH85%	1000 HR.	76 PCS	0/1



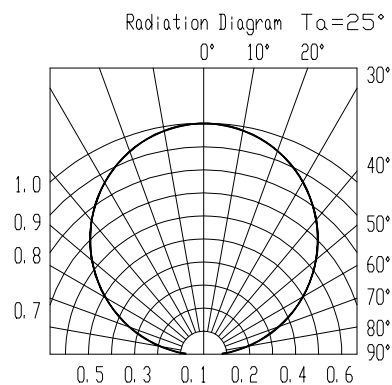
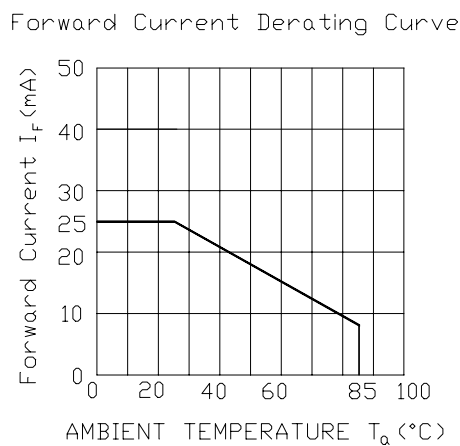
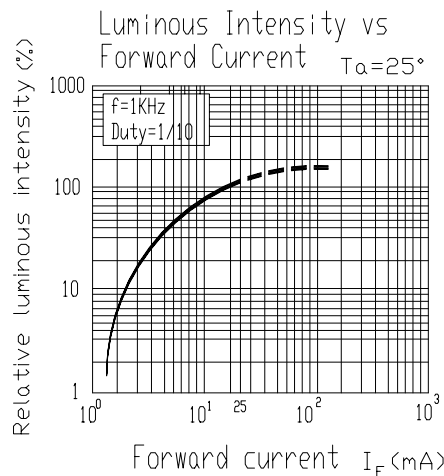
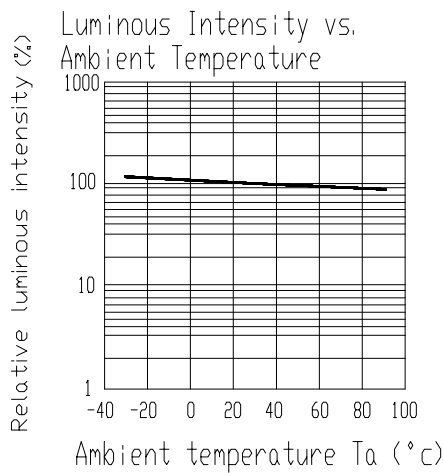
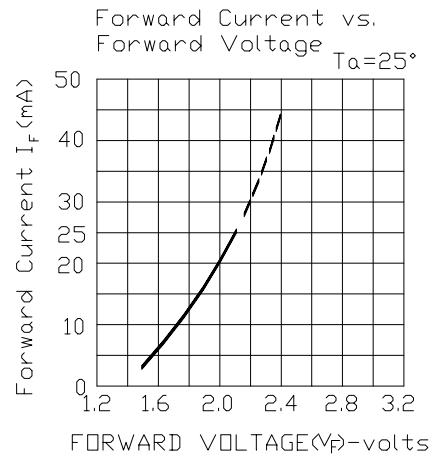
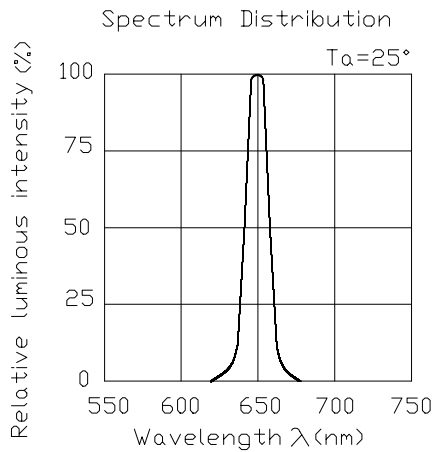
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Typical Electro-Optical Characteristic Curves



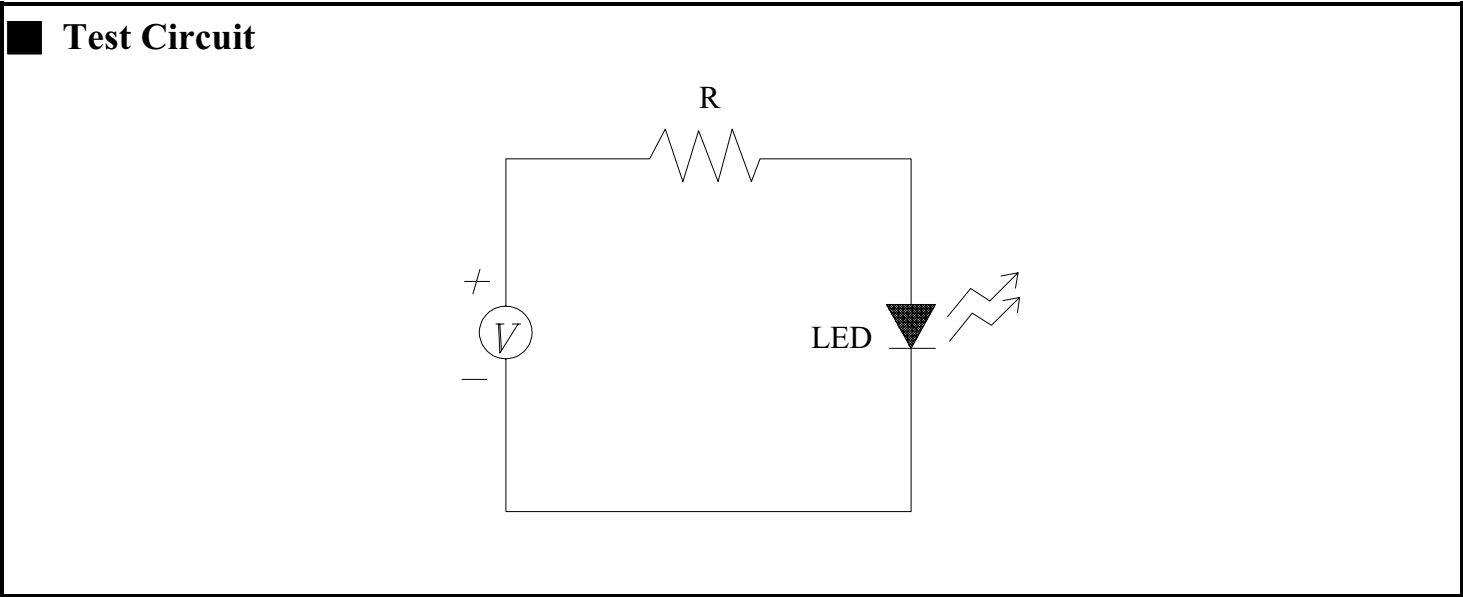


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- **Precautions For Use**
1. Over-current-proof
Customer must apply resistors for protection , otherwise slight voltage shift will cause big current change (Burn out will happen).

 2. Storage time
 - 2.1 The operation of temperature and RH are : $5^{\circ}\text{C} \sim 35^{\circ}\text{C}$, RH60%.
 - 2.2 Once the package is opened, the products should be used within a week. Otherwise , they should be kept in a damp proof box with desiccating agent. 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 $5^{\circ}\text{C} \sim 35^{\circ}\text{C}$, RH60% , 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.



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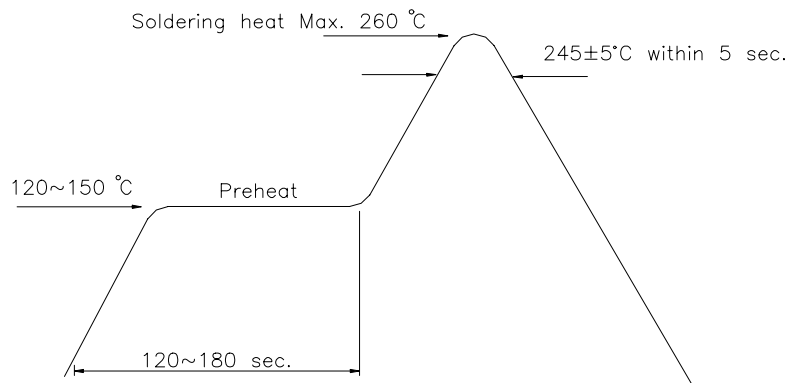
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■ Soldering heat reliability (DIP)

Please refer to the following figure :



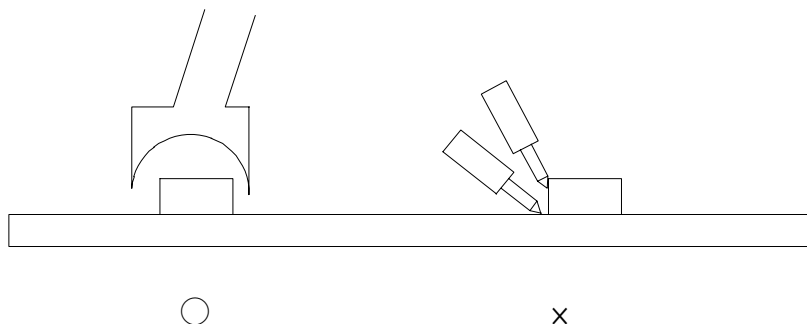
■ Soldering Iron

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 :

