



MODEL NO: 15-22SURUYC/A530-A2/TR8

Device Number : DSE-152-055 REV. 1.0

Chip LEDs with Bi-Color(Multi-Color)

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■ **Features :**

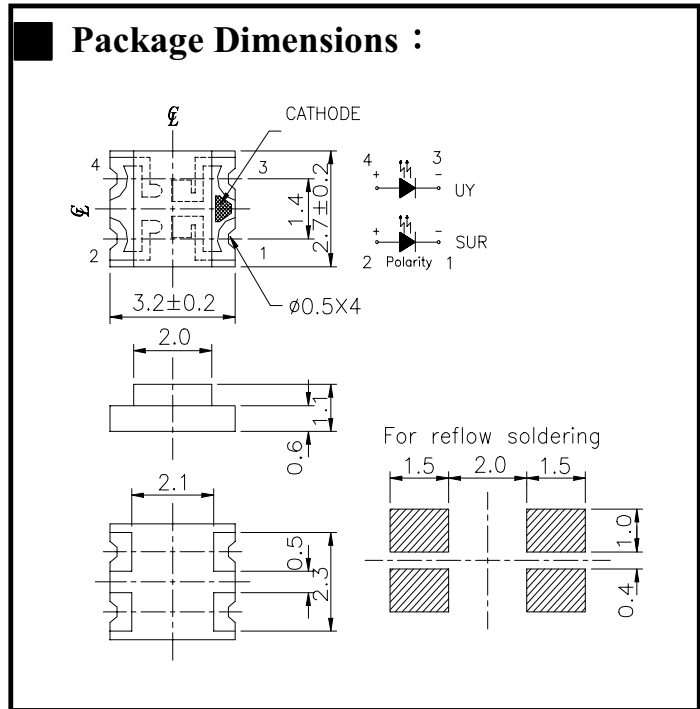
- Package in 8mm tape on 7" diameter reel.
- Compatible with automatic placement equipment.
- Compatible with infrared and vapor phase reflow solder process.
- Multi-color type.

■ **Descriptions :**

- The 15-22 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.



■ **Notes :**

Tolerances Unless Dimension $\pm 0.1\text{mm}$
 Angle $\pm 0.5^\circ$
 Unit=mm

PART NO	Chip		Lens Color
	Material	Emitted Color	
15-22SURUYC/S530-A2/TR8	SUR	AlGaInP Hyper Red	Water Clear
	UY	AlGaInP Super Yellow	

Office: NO. 25, Lane 76, Sec.3, Chung Yang Rd., Tucheng 236, Taipei, Taiwan, R.O.C.
 TEL: 886-2-2267-2000, 2267-9936
 FAX: 886-2-2267-6244, 2267-6189, 2267-6306
<http://www.everlight.com>



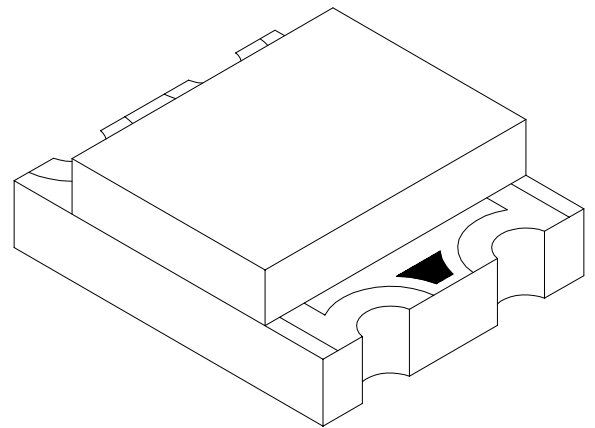
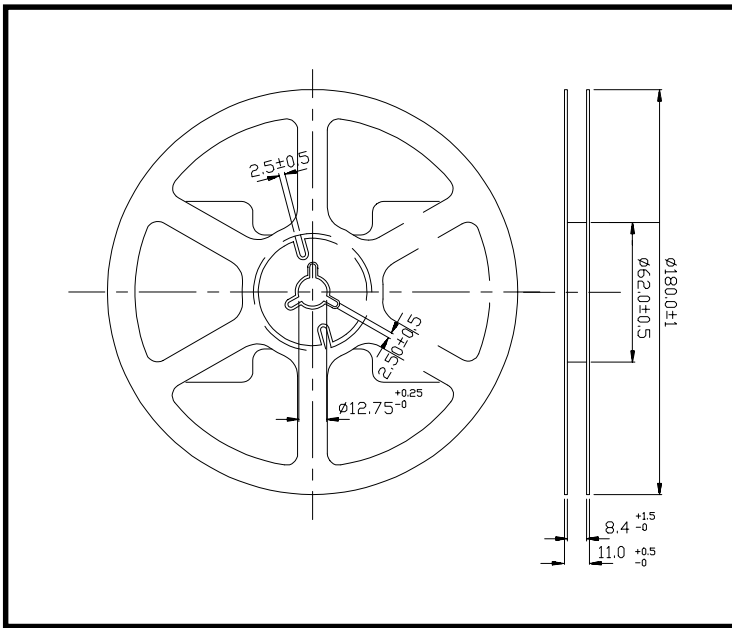
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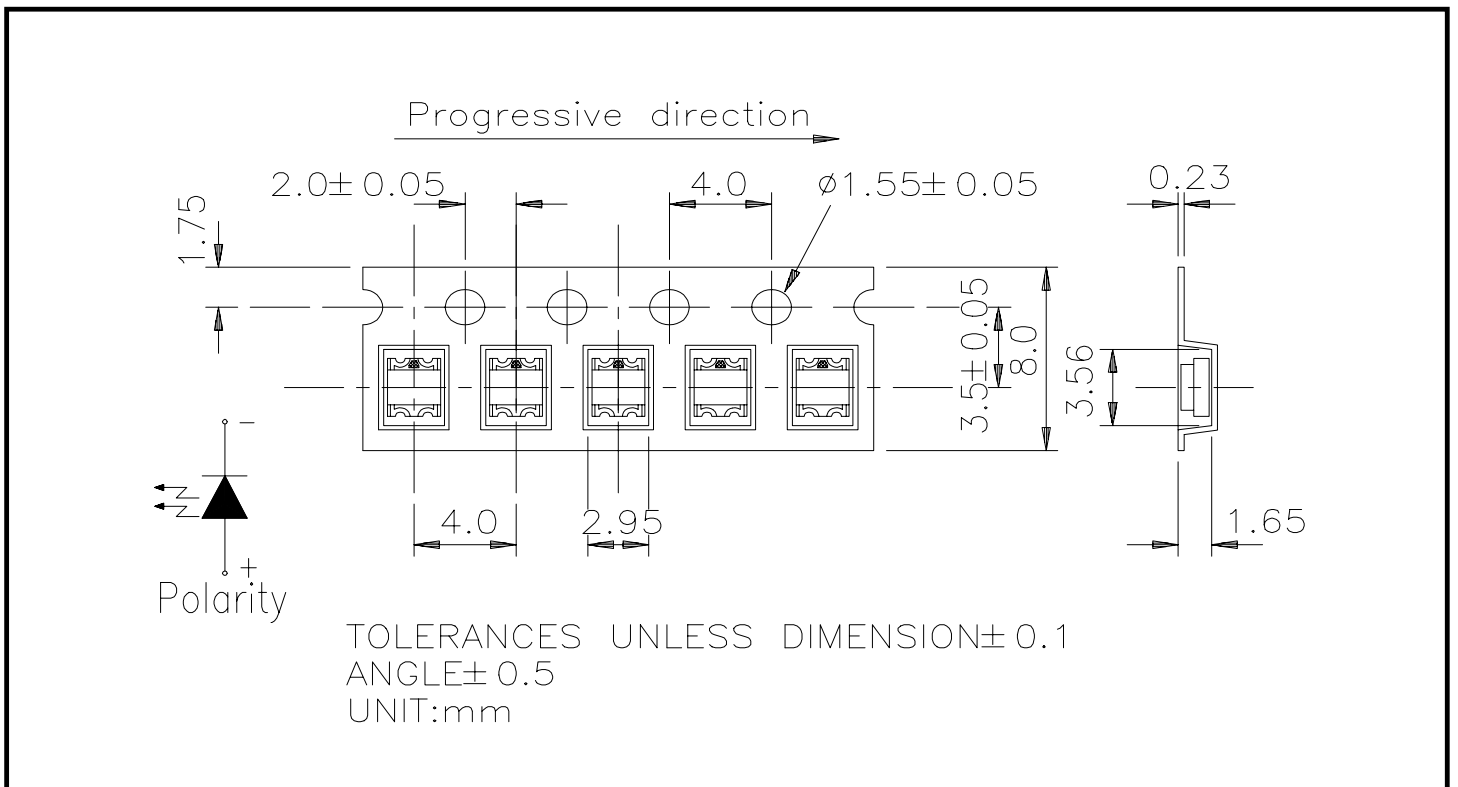
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■ Package Dimensions :



■ 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 UY: 25	mA
Operating Temperature	Topr	-40 ~ +85	°C
Storage Temperature	Tstg	-40 ~ +90	°C
Soldering Temperature	Tsol	260 (for 5 second)	°C
Electrostatic Discharge	ESD	2000	V
Power Dissipation	Pd	SUR:60 UY:60	mW
Peak Forward Current(Duty 1/10 @ 1KHZ)	If(Peak)	SUR : 160 UY: 160	mA

■ **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 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 mA	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	SUR : I _v UY:	-----	2 2	-----	mcd	If=2mA
	SUR : UY:	15 15	39 39	-----	mcd	If=20mA
Viewing Angle	2θ 1/2	-----	140	-----	deg	If=20mA
Peak Wavelength	λ _p SUR : UY:	-----	632 591	-----	nm	If=20mA
Dominant Wavelength	λ _d SUR : UY:	-----	624 589	-----	nm	If=20mA
Spectrum Radiation Bandwidth	Δλ SUR : UY:	-----	20 15	-----	nm	If=20mA
Forward Voltage	V _f SUR : UY:	-----	2.0 2.0	2.4 2.4	V	If=20mA
Reverse Current	I _r	-----	-----	10	μA	V _r =5V



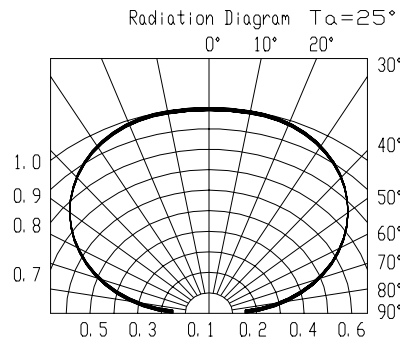
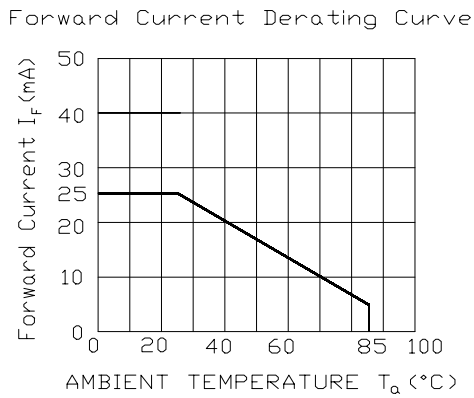
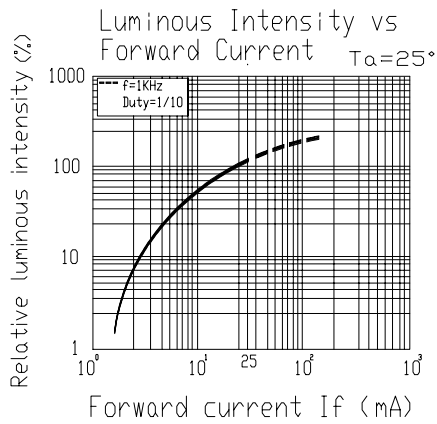
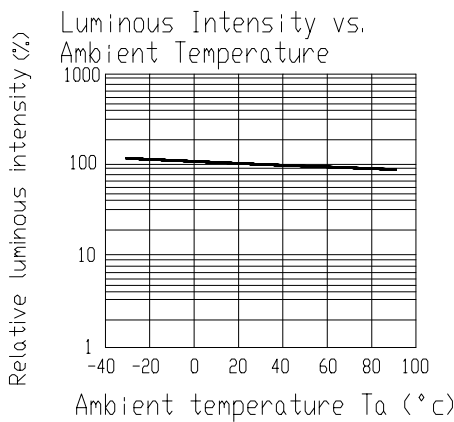
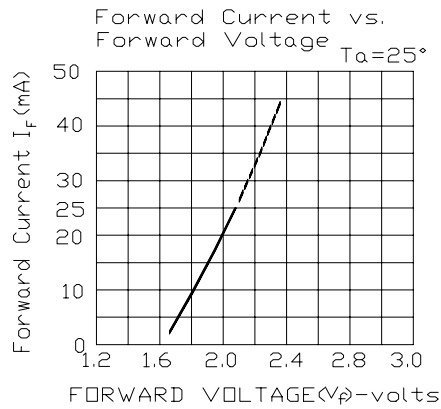
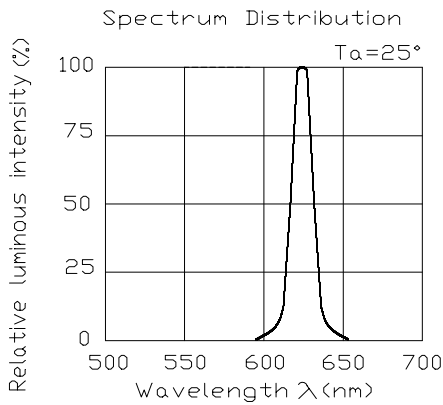
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Typical Electro-Optical Characteristic Curves

SUR





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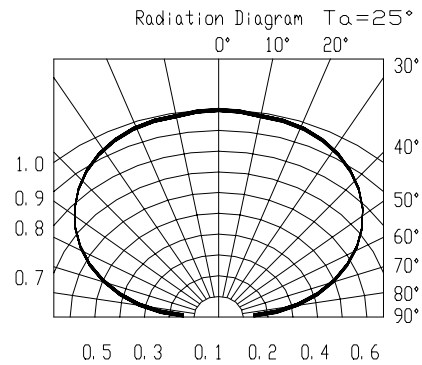
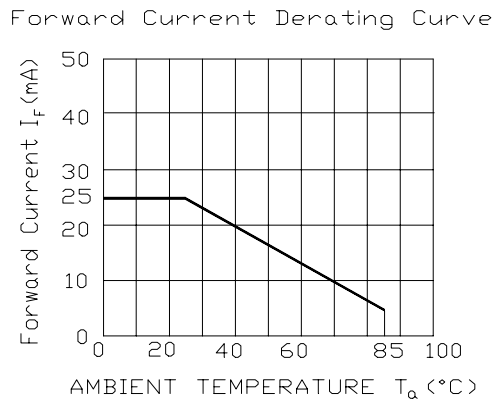
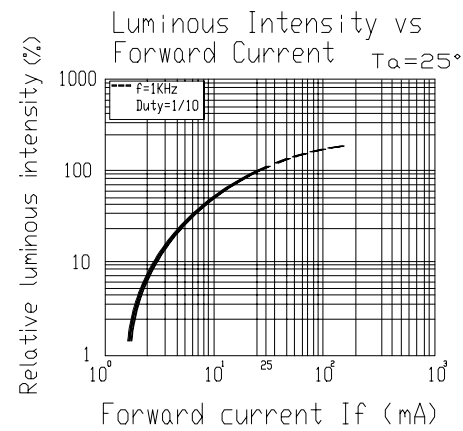
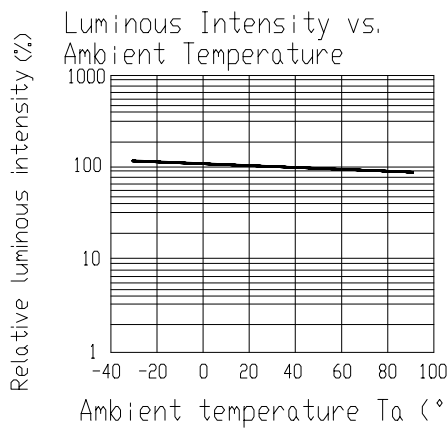
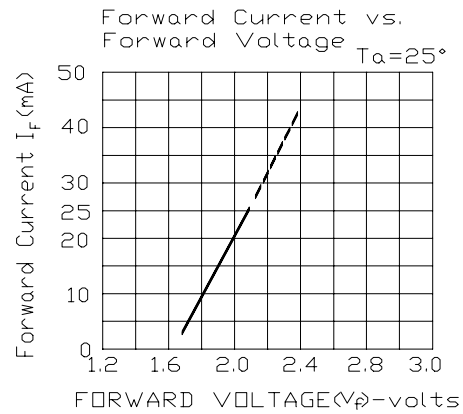
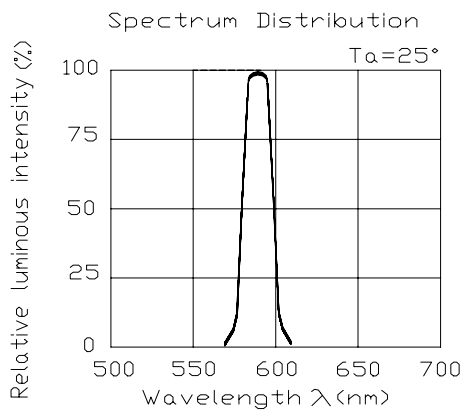
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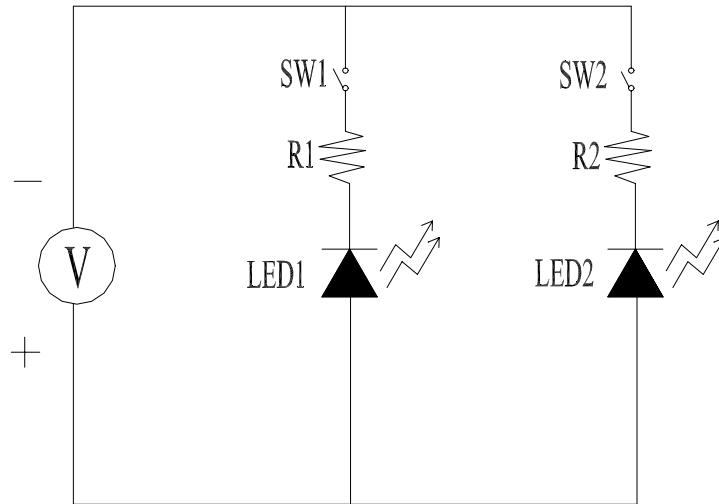
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Typical Electro-Optical Characteristic Curves

UY



MODEL NO: 15-22SURUYC/A530-A2/TR8Device Number : DSE-152-055 REV. 1.0**Chip LEDs with Bi-Color(Multi-Color)**ECN : Page: 7/9**Test Circuit****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 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 $5^{\circ}\text{C}\sim 35^{\circ}\text{C}$, 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.



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■ Reflow Temp / Time :

