



PART NO.: 19-22SOVGC/TR8

Device Number : DSE-192-012 REV. 1.0

Chip LEDs with Bi-Color(Multi-Color)

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Features :

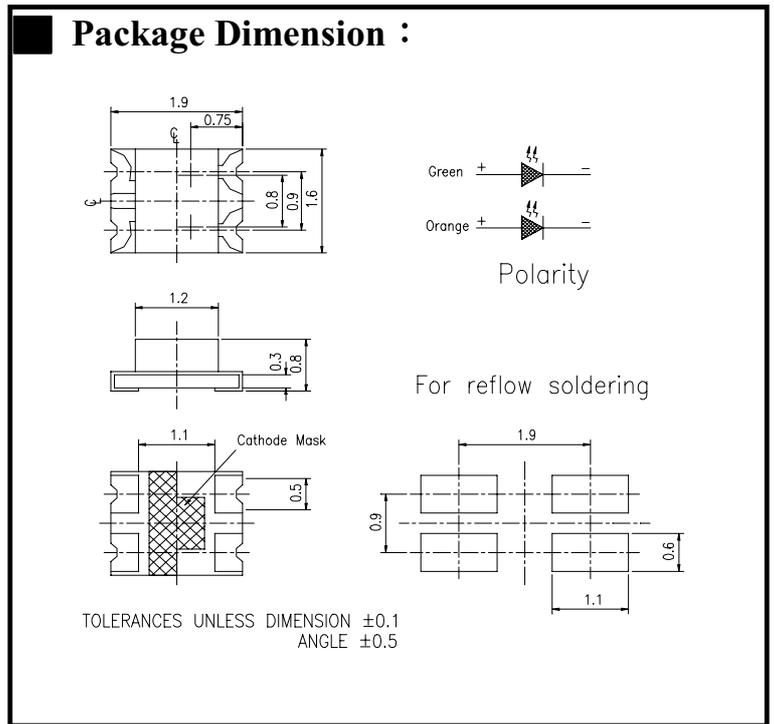
- Package in 8 mm tape on 7" diameter reel.
- Compatible with automatic equipment.
- Compatible with infrared and vapor phase reflow solder process.
- Multi-color type.

Description :

- The 19-22 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, lightweight 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.



Notes :

Tolerances Unless Dimension \pm
0.1mm
Angle $\pm 0.5^\circ$

PART NO.	Chip		Lens Color
	Material	Emitted Color	
19-22SOVGC /TR8	SO:	GaAsP/GaP	Water Clear
	VG:	AlGaInP	

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>



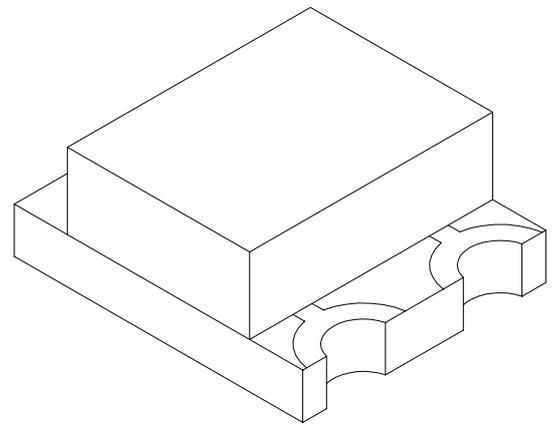
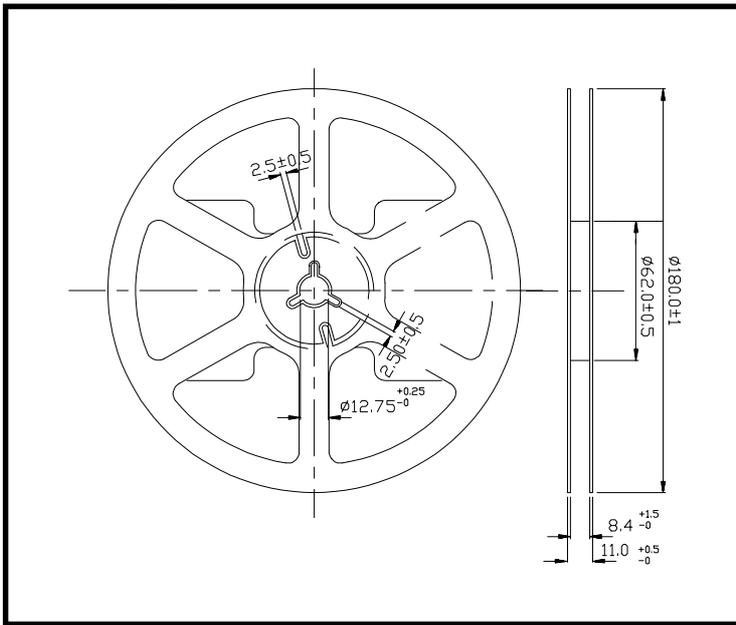
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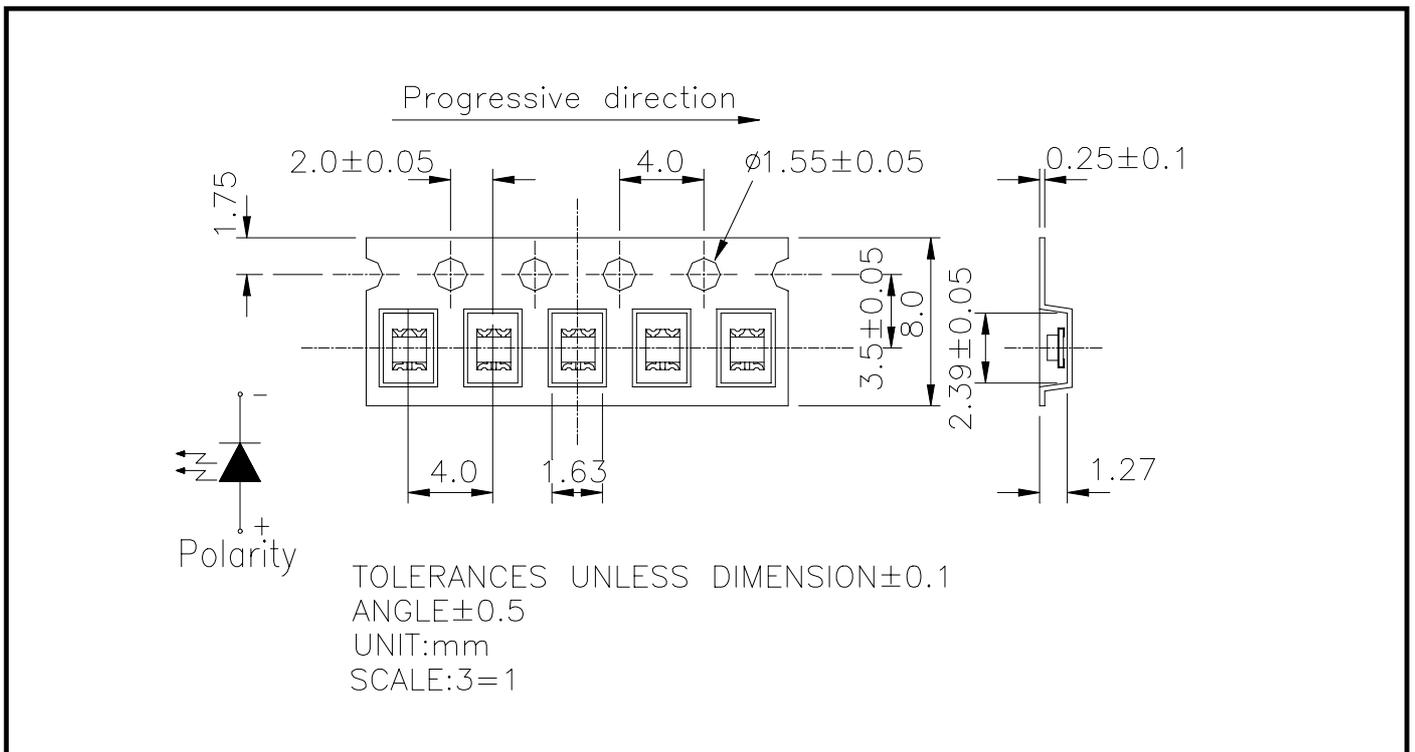
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■ Package Dimension :



■ Loaded quantity per reel 2000 pcs/reel :





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■ **Electronic Optical Characteristics :**

Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition
Luminous Intensity	Iv SO: VG:	3 7	5 12	-----	mcd	IF=20mA
Viewing Angle	2θ 1/2	-----	130	-----	deg	IF=20mA
Peak Wavelength	λp SO: VG:	-----	610 570	-----	nm	IF=20mA
Dominant Wavelength	λd SO: VG:	-----	605 571	-----	nm	IF=20mA
Spectrum Radiation Bandwidth	Δλ SO: VG:	-----	40 30	-----	nm	IF=20mA
Forward Voltage	VF SO: VG:	1.7 1.7	2.0 2.1	2.4 2.4	V	IF=20mA
Reverse Current	IR	-----	-----	10	μA	VR=5V



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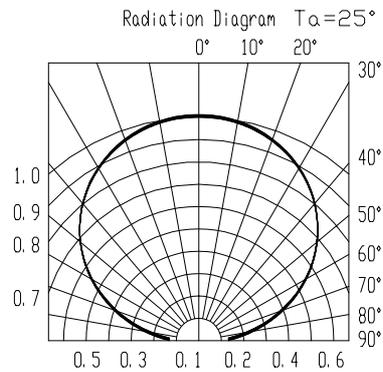
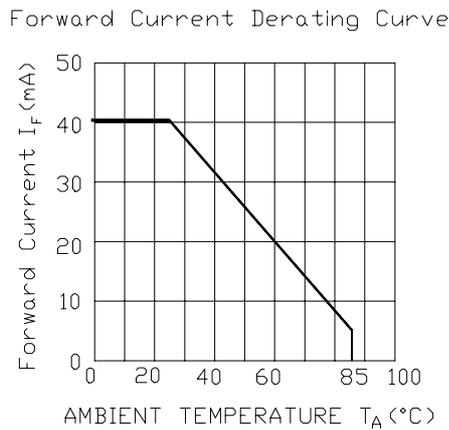
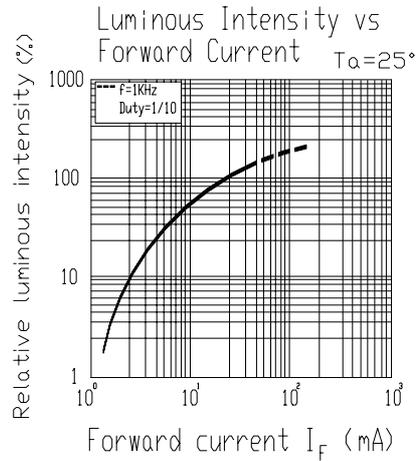
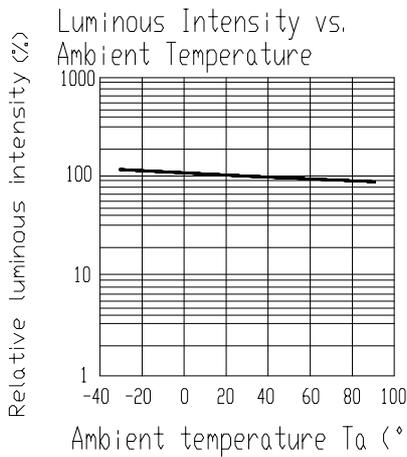
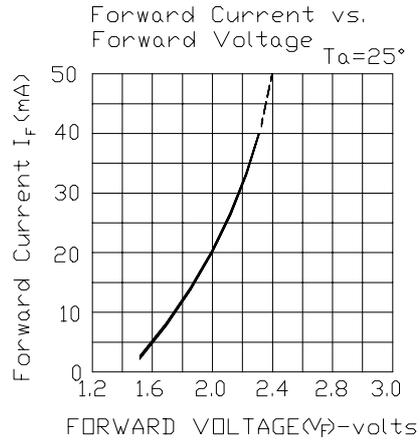
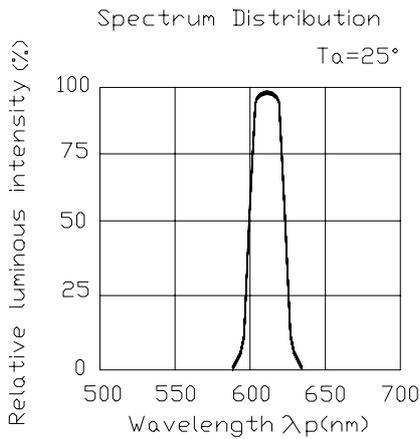
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Typical Electro-Optical Characteristic Curves

SO





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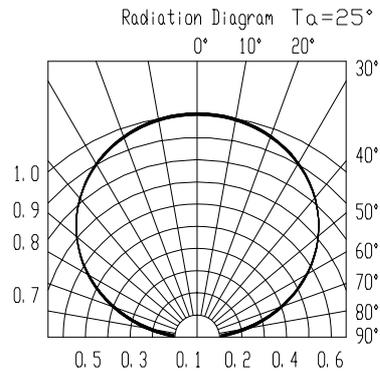
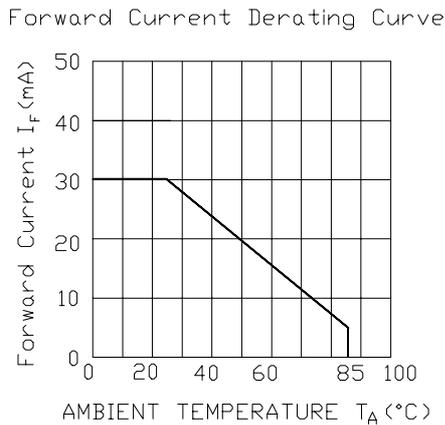
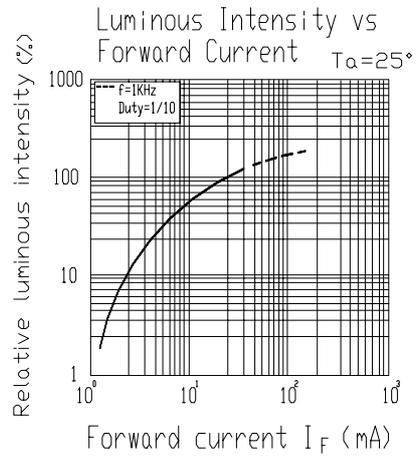
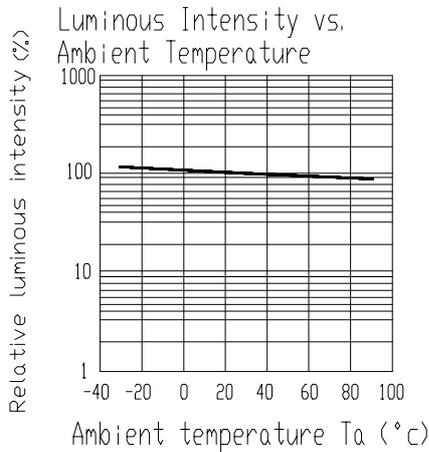
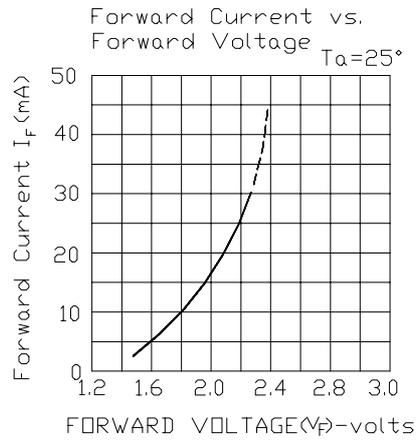
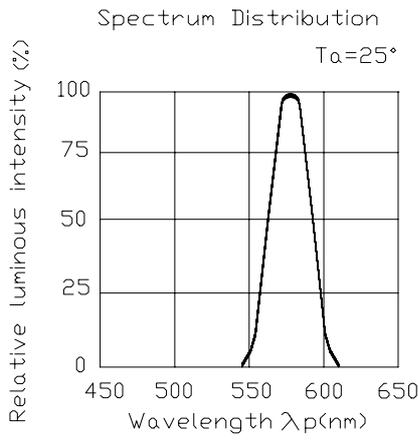
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Typical Electro-Optical Characteristic Curves

VG





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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



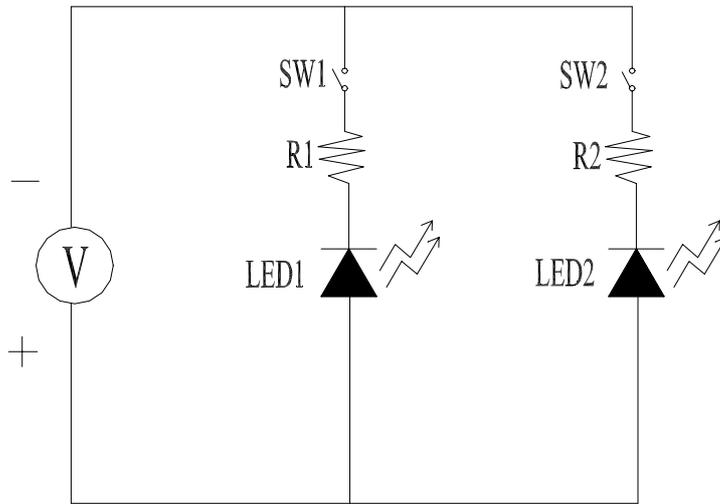
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■ **Test Circuit**



■ **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 keeping 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.



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■ Reflow Temp. / Time :

