



MODEL NO: 67-22VYVGC/TR8

Device Number : DSE-672-006 REV. 1.2

TOP LED

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Features :

- P-LCC-2package.
- White package.
- Optical indicator.
- Colorless clear window.
- Ideal for backlight and light pipe application.
- Inter reflector.
- Low (2mA) current operation.
- Wide viewing angle.
- Computable with automatic placement equipment.
- Suitable for vapor-phase reflow, Infrared reflow and wave solder processes.
- Available on tape and reel (8mm Tape).

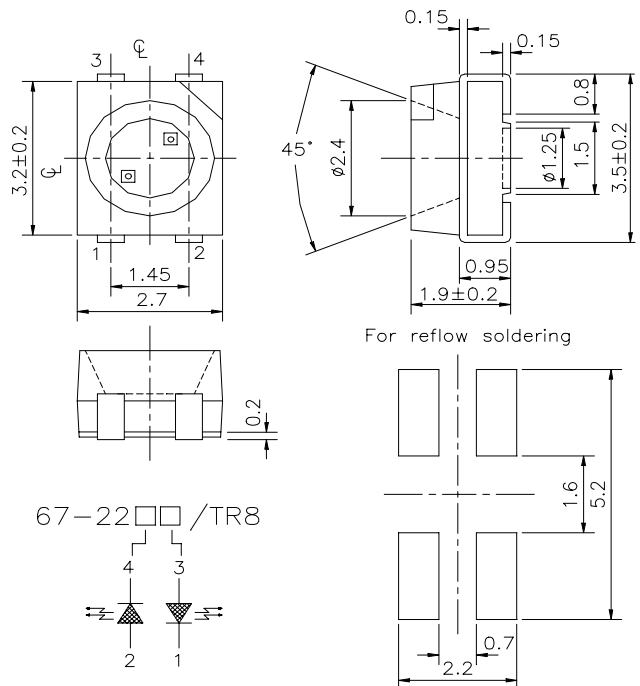
Descriptions :

- The 67-22 series is available in soft orange, green, blue and yellow.
- Due to the package design, the LED has wide viewing angle and optimized light coupling by inter reflector, this feature makes the SMT TOP LED ideal for light pipe application.
- The low current requirement makes this device ideal for portable equipment or any other application where power is at a premium.

Applications :

- Automotive: backlight in dashboards and switches.
- Telecommunication: indicator and backlight in telephone and fax.
- Indicator and backlight for audio and video equipment.
- Indicator and backlight in office and family equipment.
- Flat backlight for LCD's, switches and symbols.
- Light pipe application.
- General use.

Package Dimensions :



Notes:

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

Part NO.	Chip		Lens Color
	Material	Emitted Color	
67-22VYVGC/TR8	GaAsP/GaP	Yellow	Water Clear
	GaP	Green	

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



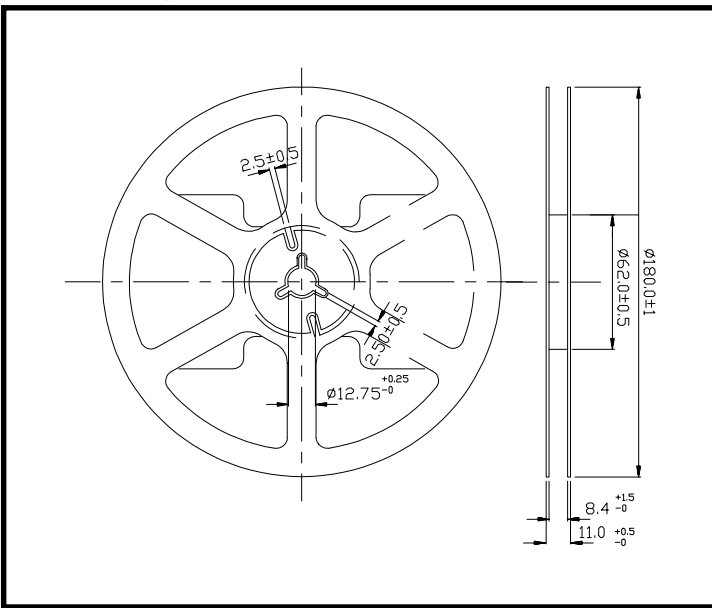
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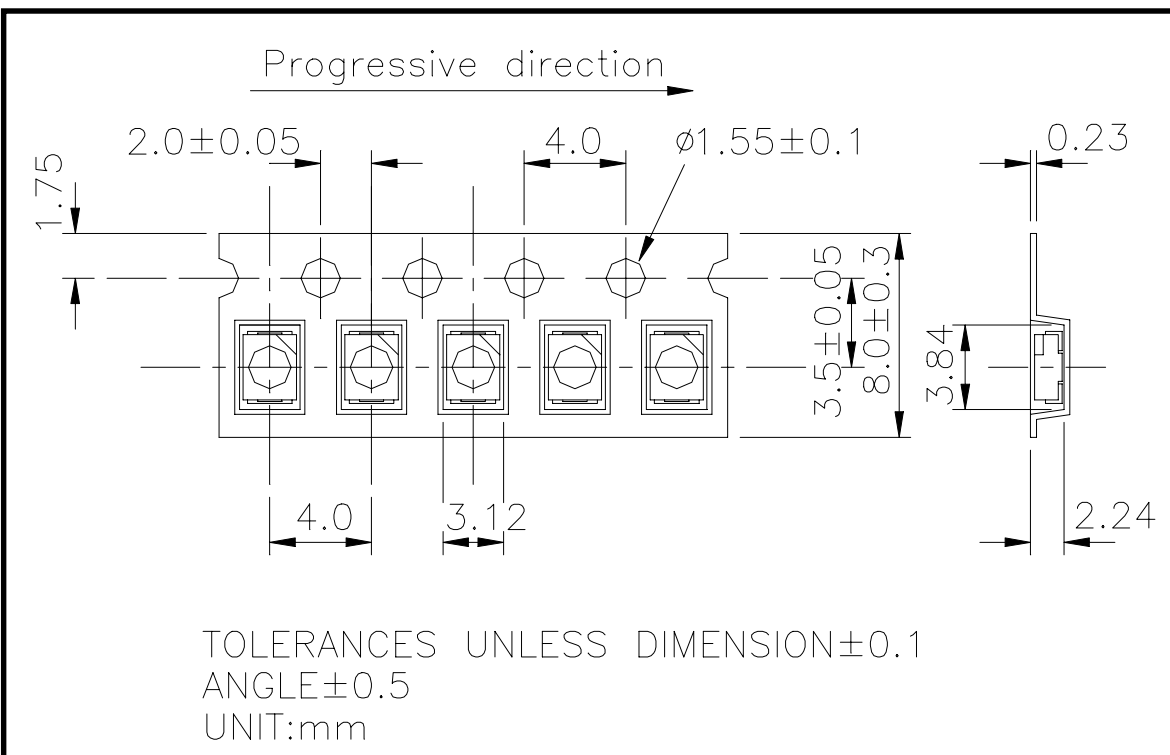
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Package Dimensions :



Loaded quantity per reel 2000 PCS/reel :





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■ **Absolute Maximum Ratings at Ta = 25°C (VY) :**

Parameter	Symbol	Rating	Unit
Reverse Voltage	V _R	5	V
Forward Current	I _F	30	mA
Operating Temperature	T _{opr}	-40 ~ +85	°C
Storage Temperature	T _{stg}	-40 ~ +90	°C
Soldering Temperature	T _{sol}	260 (for 5 second)	°C
Power Dissipation	P _d	100	mW
Peak Forward Current(Duty 1/10 @ 1KHZ)	I _F (Peak)	160	mA

■ **Electronic Optical Characteristics (VY) :**

Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition
Luminous intensity	I _v	5.5	9	-----	mcd	I _F =20mA
Viewing Angle	2θ 1/2	-----	120	-----	deg	I _F =20mA
Peak Wavelength	λ _p	-----	585	-----	nm	I _F =20mA
Dominant Wavelength	λ _d	-----	590	-----	nm	I _F =20mA
Spectrum Radiation Bandwidth	△λ	-----	35	-----	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



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■ **Absolute Maximum Ratings at Ta = 25°C (VG) :**

Parameter	Symbol	Rating	Unit
Reverse Voltage	V _R	5	V
Forward Current	I _F	30	mA
Operating Temperature	T _{opr}	-40 ~ +85	°C
Storage Temperature	T _{stg}	-40 ~ +90	°C
Soldering Temperature	T _{sol}	260(for 5 second)	°C
Power Dissipation	P _d	100	mW
Peak Forward Current(Duty 1/10 @ 1KHz)	I _{F(Peak)}	160	mA

■ **Electronic Optical Characteristics (VG) :**

Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition
Luminous intensity	I _v	15	25	-----	mcd	I _F =20mA
Viewing Angle	2θ 1/2	-----	120	-----	deg	I _F =20mA
Peak Wavelength	λ _p	-----	570	-----	nm	I _F =20mA
Dominant Wavelength	λ _d	-----	571	-----	nm	I _F =20mA
Spectrum Radiation Bandwidth	Δλ	-----	30	-----	nm	I _F =20mA
Forward Voltage	V _F	1.7	2.1	2.4	V	I _F =20mA
Reverse Current	I _R	-----	-----	10	μA	V _R =5V



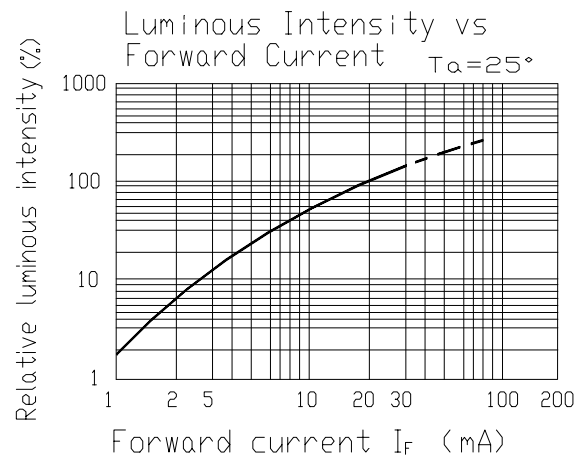
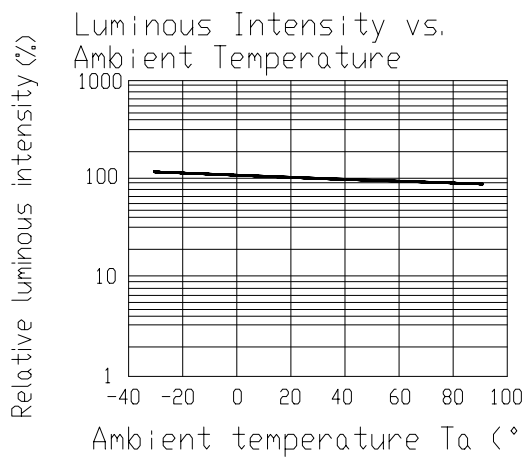
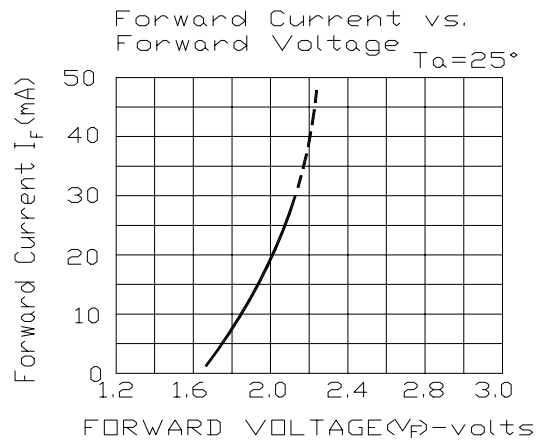
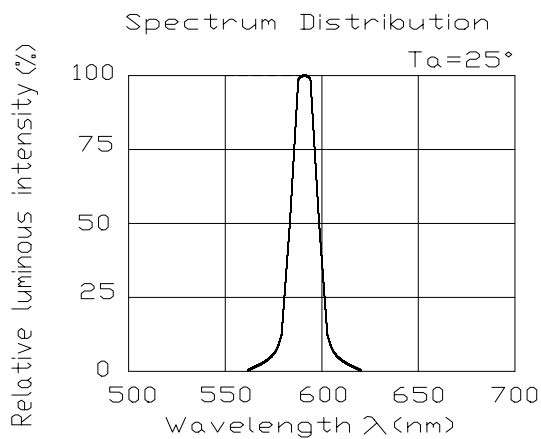
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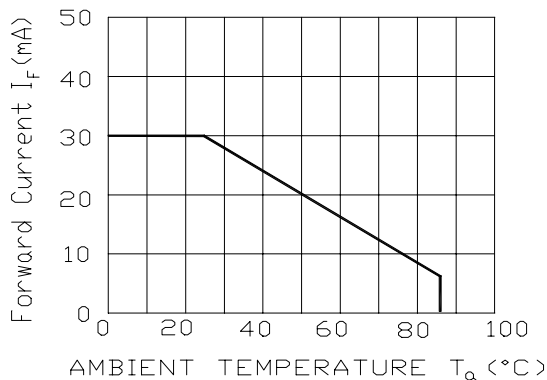
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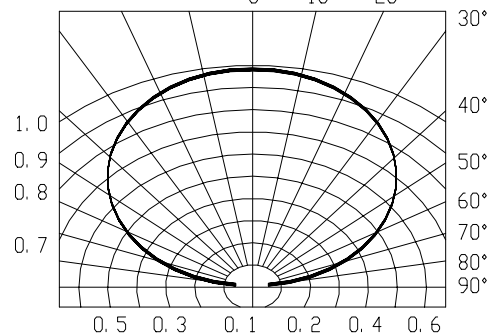
■ **Typical Electro-Optical Characteristic Curves(VY) :**



Forward Current Derating Curve



Radiation Diagram $T_a=25^\circ$





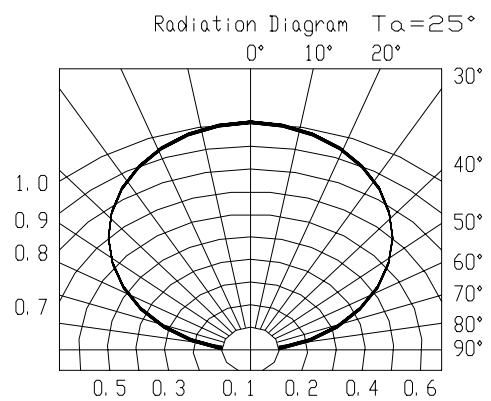
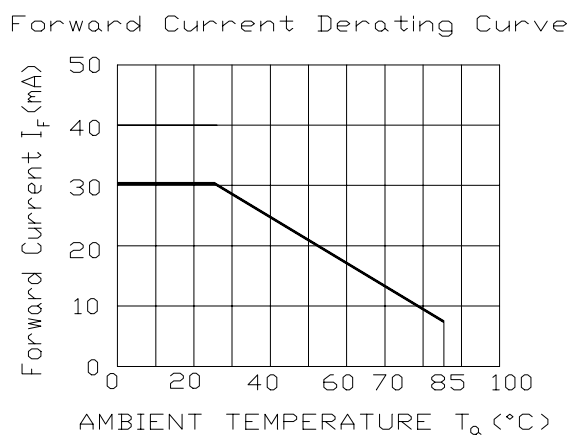
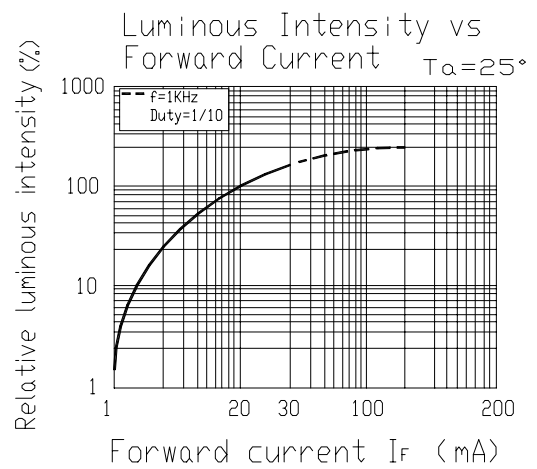
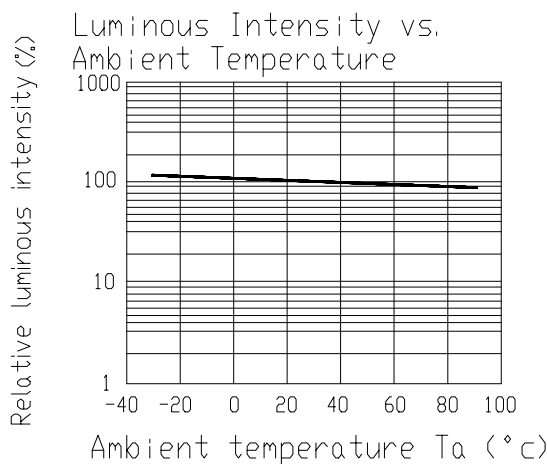
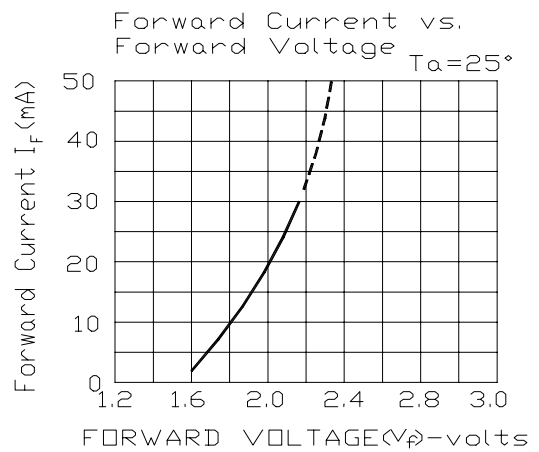
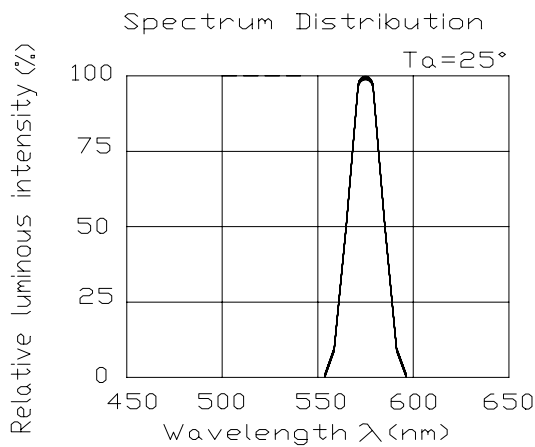
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Typical Electro-Optical Characteristic Curves(VG) :





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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 HRS	76 PCS	0/1
5	Low Temperature Storage	TEMP : -55°C	1000 HRS	76 PCS	0/1
6	DC Operating Life	I _F = 20 mA	1000 HRS	76 PCS	0/1
7	High Temperature / High Humidity	85°C /85% RH	1000 HRS	76 PCS	0/1

Products are evaluated according to the above standard reliability criteria.

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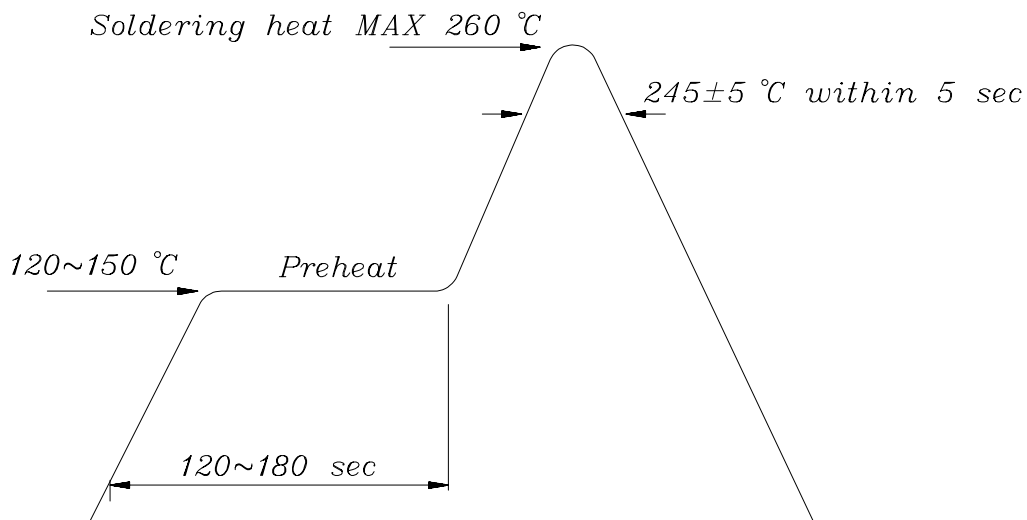
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■ **Soldering heat reliability (DIP) :**

Please refer to the following figure :

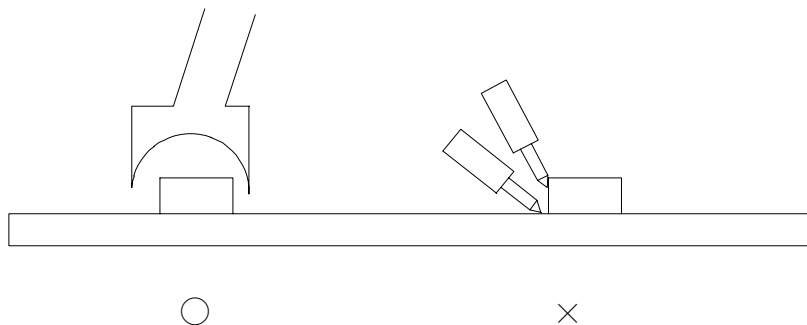


■ **Soldering Iron :**

Basic spec is ≤ 5 sec when 245°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 245°C.
2. The head of iron can not touch copper foil.
3. Twin-head type is preferred.





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■ Reflow Temp / Time :

