



EVERLIGHT ELECTRONICS CO.,LTD.

PART NO. : 96-22VGC

Device Number : DSE-962-001 REV. 1.1

High Performance with Reflector LEDs

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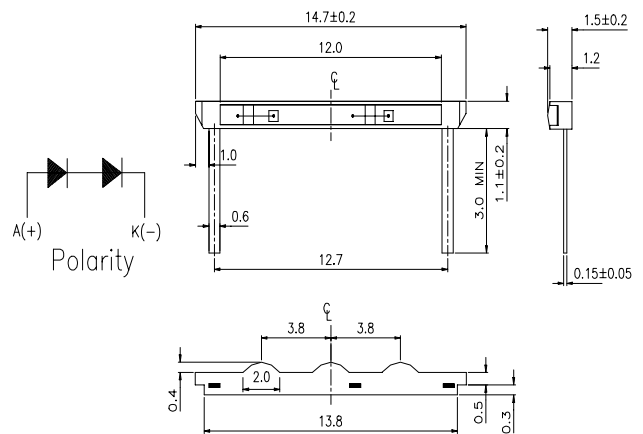
Features :

- Compatible with automatic placement equipment.
- Compatible with infrared and vapor phase reflow solder process.
- Eia std package.
- IC compatible.

Descriptions/Applications :

- . Automotive: backlighting in dashboard and switch,
- . Telecommunication: indicator and backlighting in telephone and fax..
- . Indicator and backlight for audio and video equipment.
- . Indicator and backlight for battery driven equipment.
- . Small indicator for outdoor applications.
- . Indicator and backlight in office equipment.
- . Flat backlight for LCD, switch and symbol.
- . General use.

Package Dimension :



Notes :

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

PART NO	CHIP		Lens Color
	Material	Emitted Color	
96-22VGC	GaP	Green	Water Clear

Office: NO. 25, Lane 76, Sec. 3, Chung Yang Rd., Tucheng 236, Taipei, Taiwan, R.O.C.

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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	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	200	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	20	30	-----	mcd	I _F =20mA
Viewing Angle	2 θ 1/2	-----	145	-----	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	△ λ	-----	30	-----	nm	I _F =20mA
Forward Voltage	V _F	3.4	4.2	4.8	V	I _F =20mA
Reverse Current	I _R	-----	-----	10	μ A	V _R =5V



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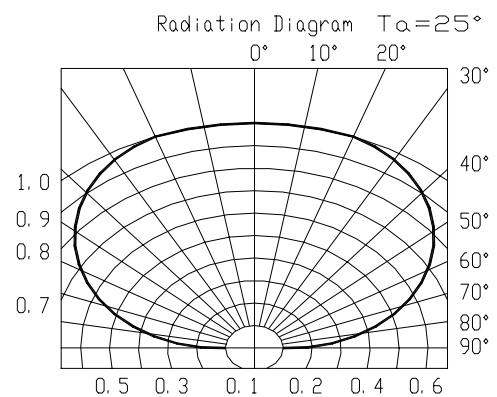
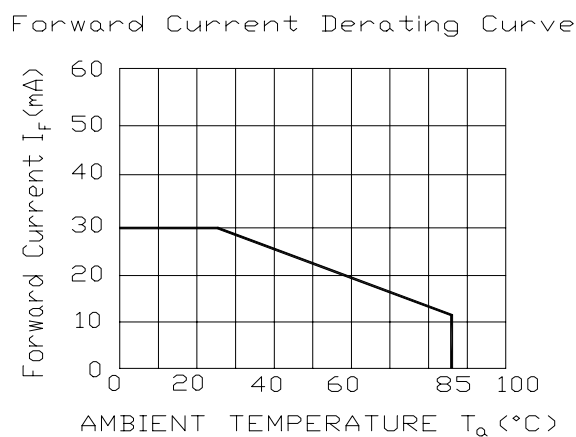
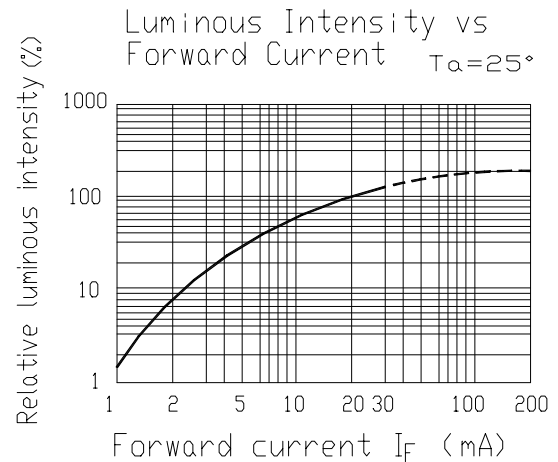
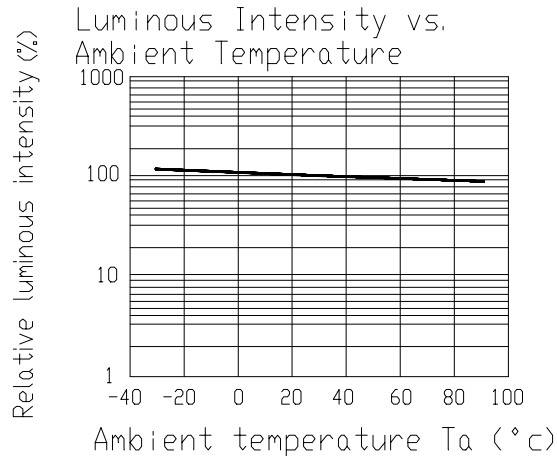
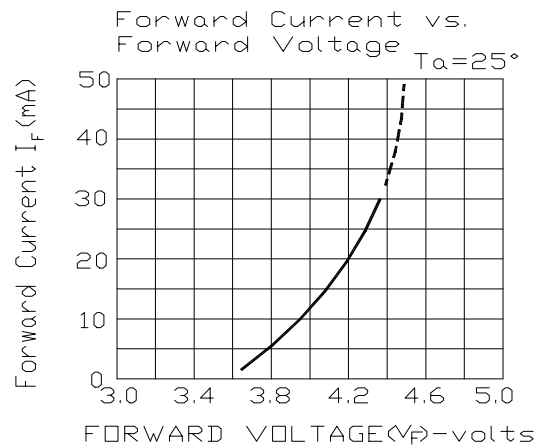
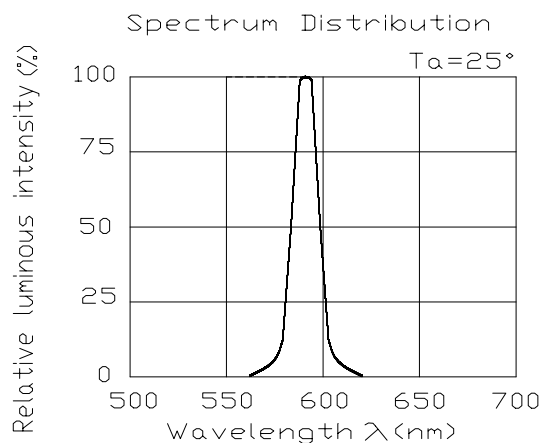
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Typical Electro-Optical Characteristic Curves





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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	High 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



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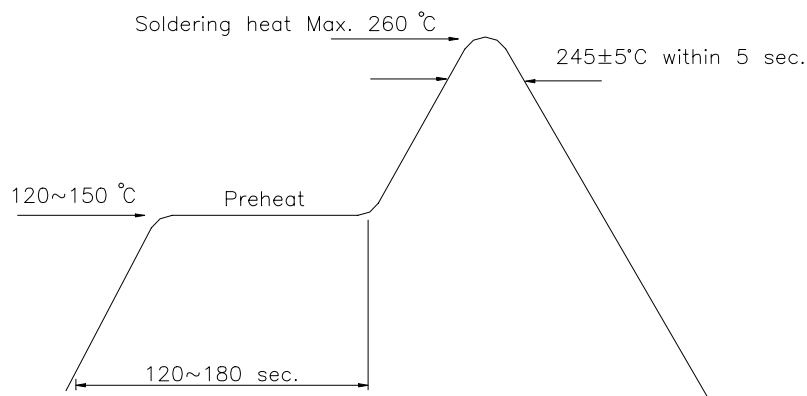
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TOP LEDs

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■ Soldering heat reliability (DIP) :

Please refer to the following figure :

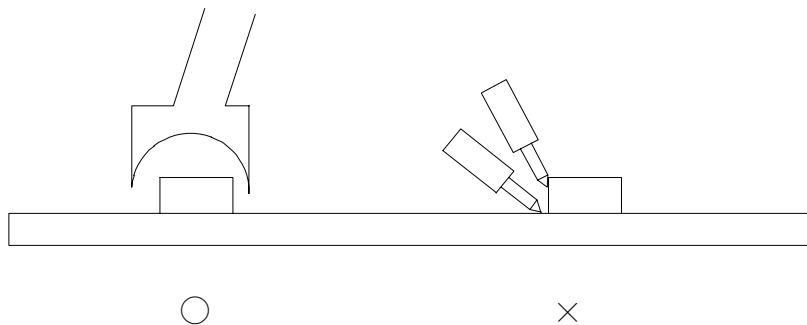


■ Soldering Iron :

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 :

