



EVERLIGHT ELECTRONICS CO., LTD.

MODEL NO: 97-22UBC/C470/S2

Device Number : DSE-972-005 REV. 1.0

High Performance with Reflector LEDs

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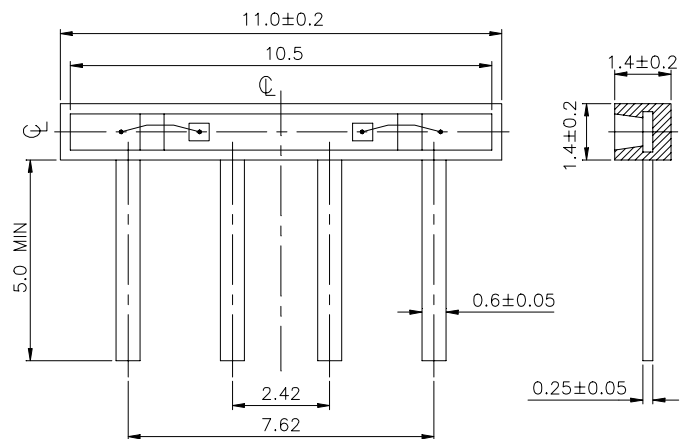
Features :

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

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 LED, switches and symbol.
- General use.

Package Dimension :



Notes :

Tolerances Unless Dimension $\pm 0.1\text{mm}$

Angle $\pm 0.5^\circ$

Unit = mm

PART NO	CHIP		Lens Color
	Material	Emitted Color	
97-22UBC/C470/S2	InGaN/SiC substrate	Blue	Water Clear

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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}	-20~+85	°C
Storage Temperature	T _{stg}	-30~+90	°C
Soldering Temperature	T _{sol}	260(for 5second)	°C
Electrostatic Discharge	ESD	1000	V
Power Dissipation	P _d	120	mW
Peak Forward Current(Duty 1/10 @ 1KHZ)	I _f (Peak)	100	mA

■ **Electronic Optical Characteristics :**

Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition
Luminous intensity	I _v	-----	2	-----	mcd	I _f =2mA
		25	32	-----	mcd	I _f =20mA
Viewing Angle	2 θ 1/2	-----	145	-----	deg	I _f =20mA
Peak Wavelength	λ _p	-----	468	-----	nm	I _f =20mA
Dominant Wavelength	λ _d	-----	470	-----	nm	I _f =20mA
Spectrum Radiation Bandwidth	△ λ	-----	26	-----	nm	I _f =20mA
Forward Voltage	V _f	-----	3.5	4.0	V	I _f =20mA
Reverse Current	I _r	-----	-----	50	μ A	V _r =5V



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■ Reliability test item and condition

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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Typical Electro-Optical Characteristic Curves

