



EVERLIGHT ELECTRONICS CO.,LTD.

Technical Data Sheet

3mm 1Pcs Circuit Board Indicator

A4414B-20/SUBC/S400-A6

■ Features :

- Low power consumption
- High efficiency and low cost
- Good control and free combinations on the colors of LED lamps
- Good lock and easy to assembly
- Stackable and easy to assembly
Stackable vertically and easy to assembly
- Versatile mounting on P.C board or panel
- Stackable horizontally and easy to assembly
- Pb free
- The product itself will remain within RoHS compliant version



■ Descriptions :

- ARRAY=Plastic Holder+Combinations of Lamps
- The array will easily mount the applicable lamps on any panel up to

■ Applications :

- 1.Used as indicators of indicating the Degree, Functions, Positions etc, in electronic instruments.

PART NO.	Chip		Lens Color
	Material	Emitted Color	
204-10SUBC/S400-A6	InGaN	Super Blue	Water Clear



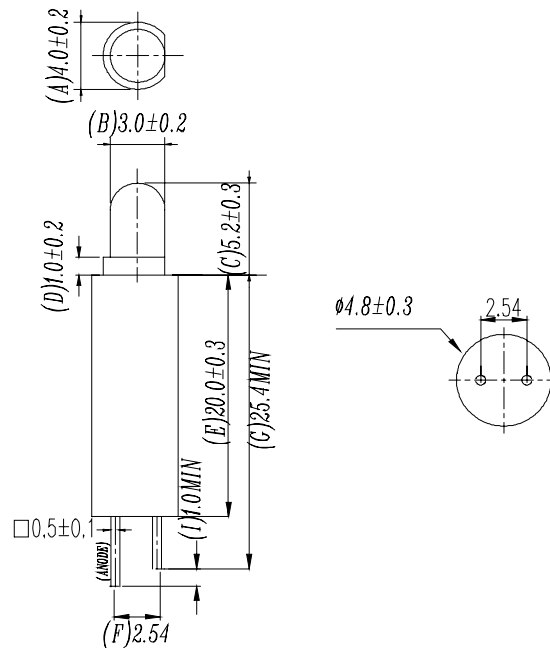
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Package Dimensions



- Notes:
- 1.All dimensions are in millimeters, tolerance is 0.25mm except being specified
 - 2.Lead spacing is measured where the lead emerge from the package

Absolute Maximum Ratings at $T_a = 25^\circ\text{C}$

Parameter	Symbol	Rating	Unit
Forward Current	I_F	25	mA
Operating Temperature	T_{opr}	-40 to +85	$^\circ\text{C}$
Storage Temperature	T_{stg}	-40 to +100	$^\circ\text{C}$
Soldering Temperature	T_{sol}	260 ± 5	$^\circ\text{C}$
Electrostatic Discharge	ESD	2000	V
Power Dissipation	P_d	130	mW
Reverse Voltage	VR	5	V

Note: *1:Soldering time ≤ 5 seconds.



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Electro-Optical Characteristics(Ta=25°C)

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Forward Voltage	V _F	I _F = 20 mA	/	3.4	4.0	V
Reverse Current	I _R	V _R = 5 V	/	/	50	μA
Luminous Intensity	I _v	I _F = 20 mA	630	1250	/	mcd
Viewing Angle	2θ 1/2	I _F = 20 mA	/	30	/	deg
Peak Wavelength	λ _p	I _F = 20 mA	/	468	/	nm
Dominant Wavelength	λ _d	I _F = 20 mA	/	470	/	nm
Spectrum Radiation Bandwidth	△λ	I _F = 20 mA	/	35	/	nm



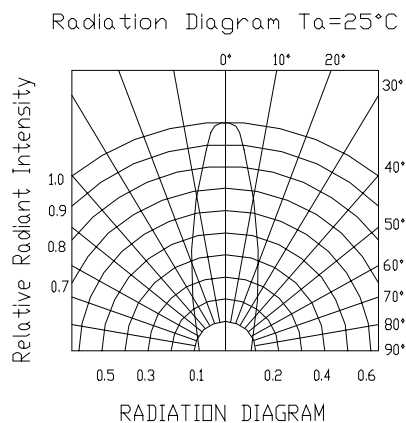
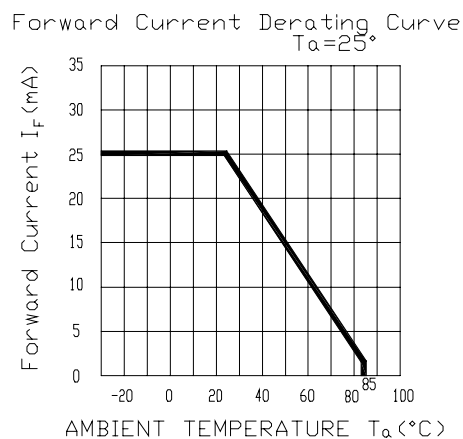
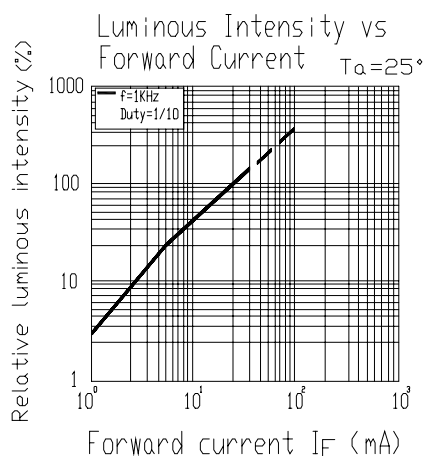
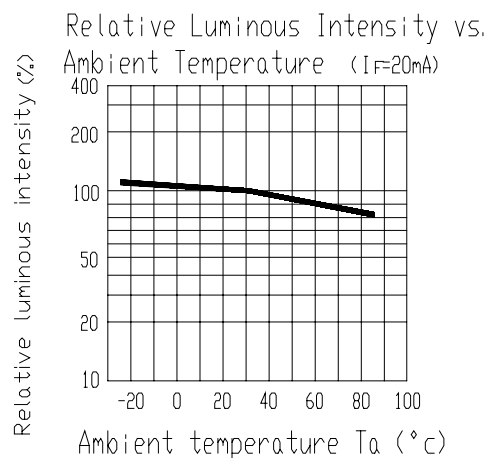
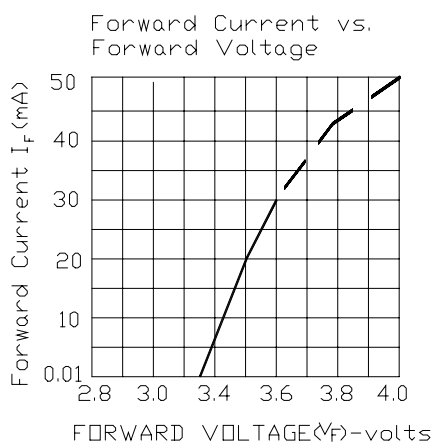
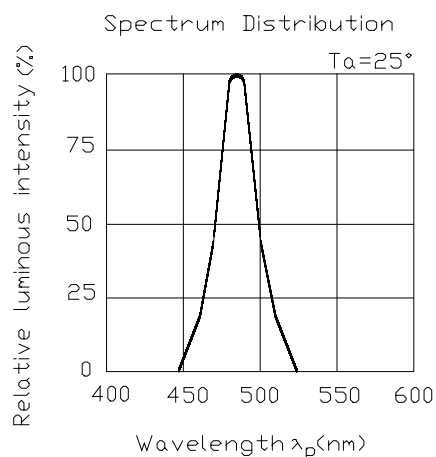
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■ Typical Electro-Optical Characteristic Curves:

SUB





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■ Reliability test items and conditions:

The reliability of products shall be satisfied with items listed below.

Confidence level : 97%

LTPD : 3%

NO	Item	Test Conditions	Test Hours/Cycle	Sample Size	Failure Judgment Criteria	Ac/Re
1	Solder Heat	TEMP : 260°C ± 5 °C	10 SEC	76 PCS	$I_v \leq I_{vt} * 0.5$ or $V_f \geq U$ or $V_f \leq L$	0/1
2	Temperature Cycle	H : +100°C 15min § 5 min L : -40°C 15min	300 CYCLES	76 PCS		0/1
3	Thermal Shock	H : +100°C 5min § 10 sec L : -10°C 5min	300 CYCLES	76 PCS		0/1
4	High Temperature Storage	TEMP : 100°C	1000 HRS	76 PCS		0/1
5	Low Temperature Storage	TEMP : -40°C	1000 HRS	76 PCS		0/1
6	DC Operating Life	TEMP : 25°C I _F = 20mA	1000 HRS	76 PCS		0/1
7	High Temperature / High Humidity	85°C / 85% RH	1000 HRS	76 PCS		0/1

Note : I_{vt} : To test I_v value of the chip before the reliability test

I_v : The test value of the chip that has completed the reliability test

U : Upper Specification Limit

L : Lower Specification Limit



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Packing Quantity Specification

- 1 500PCS/1Bag , 4Bags/1Box
2. 10Boxes/1Carton

Label Form Specification



CPN: Customer' s Production Number
P/N : Production Number
QTY: Packing Quantity
CAT: Ranks
HUE:Dominant Wavelength
REF: Reference
LOT No: Lot Number
MADE IN TAIWAN: Production Place

Notes

1. Above specification may be changed without notice. EVERLIGHT will reserve authority on material change for above specification.

The product itself will remain within RoHS compliant version

for using outlined in these specification sheets. EVERLIGHT assumes no responsibility for any damage resulting from use of the product which does not comply with the absolute maximum ratings and the instructions included in these specification sheets.

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