

1. Product Description



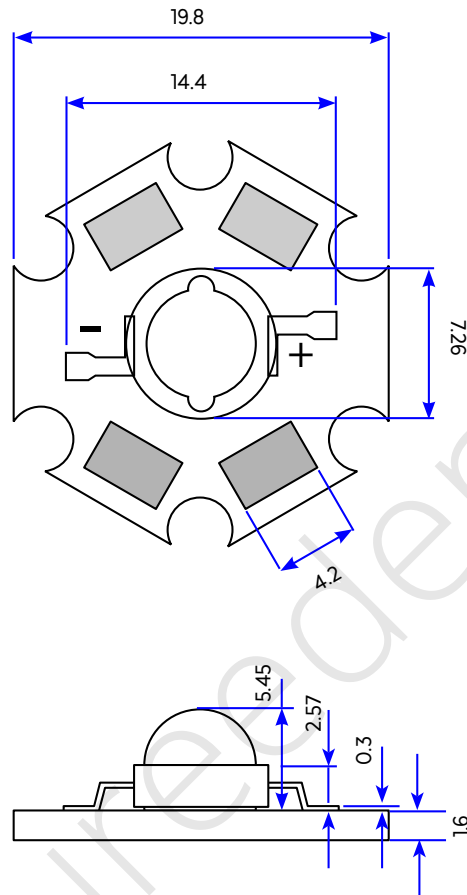
Product features:

- Super High Flux Output and Luminance
- Designed for High Current Operation
- Low Thermal Resistance : 12°C SMT Solder capability
- RoHs compliant and CE Certified
- 3 Year Warranty

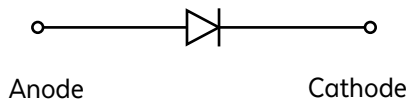
Applications:

- Growlight PAR Horticultural Lighting
- General Illumination
- Outdoor & Indoor Architectural Lighting
- Decorative Lighting

2. Outline Dimensions



Internal Circuit



Notes:

- All dimensions in millimetres (tolerance :+/- 0.2)
- Chip Size 45mil Bridgelux - Full Spectrum Coating
- Die Material - InGaN
- Lens - Waterclear
- Appearances may vary slightly for improvement without notice.

3. Electrical and Optical Characteristics

Photoelectric Parameters at Ta=25°C (RH60% humidity)

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Forward Voltage	VF	IF = 600mA	3.0	3.2	3.6	V
Reverse Current	IF	VR = 5V	-	-	10	μA
Lumious Output	φ	IF=600mA	120	-	130	lm
Colour Temperature	CCT	IF=600mA	-	1340	-	K
Spectrum Line Half Width	Δλ	IF=600mA	380	-	840	nm
ESD withstand Limit	ESD (HBM)	-	-	-	-	V
Reverse Voltage	VR	No reverse operation				

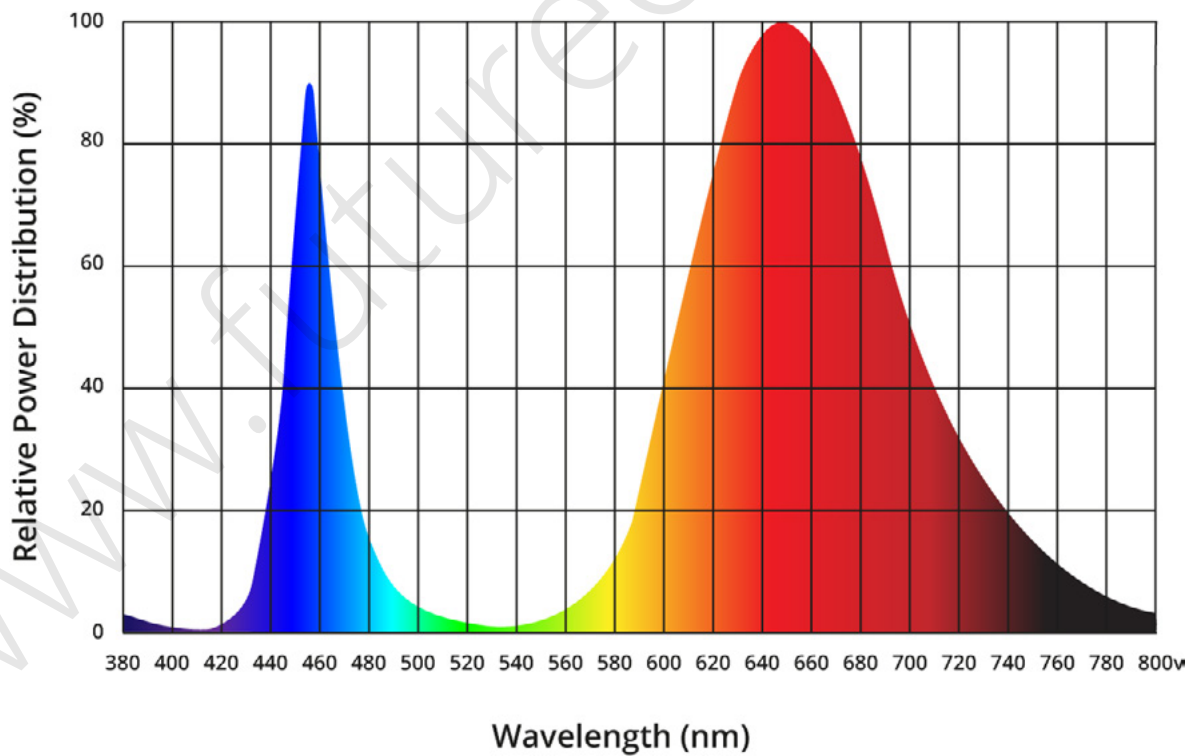
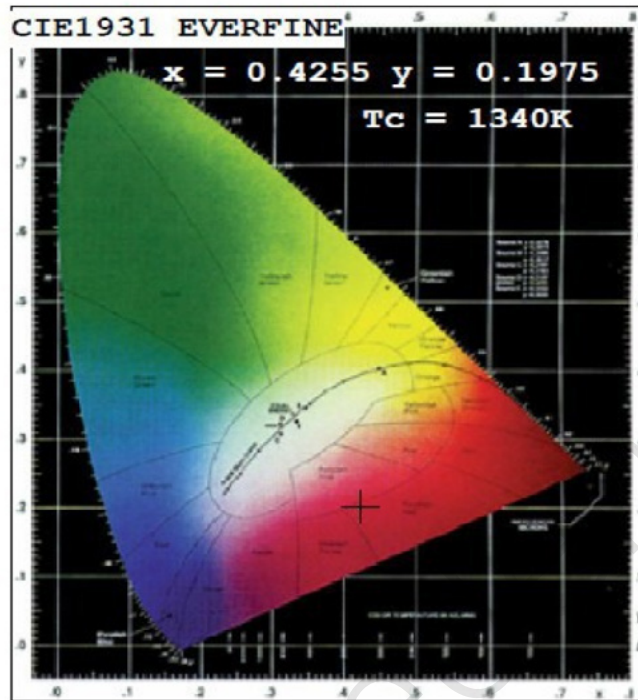
Absolute Maximum Ratings at Ta=25°C (RH60% humidity)

Parameter	Symbol	Value	Unit	Remark
Forward Current	IF	600	mA	-
Peak Forward Current	IFM	950	mA	F=1KHZ,(duty cycle)1/10
Reverse Voltage	VRP	5	V	~
Power Dissipation	Pm	2.16	W	-
Operating Temperature	Ta	-40 to +60	°C	
Storage Temperature	Tstg	-40 to +100	°C	~

Notes:

- Tolerance of Luminous Flux is +/- 15%
- Wavelength Tolerance ±1nm.
- Tolerance of Forward Voltage is +/- 0.05v

4. Relative Spectral Power Distribution



Notes:

- Wavelength Tolerance $\pm 1nm$.

5 Test Criteria

Description	Test Items	Test Standards	Test Condition	Test Time	Qty	Fail Qty
Lifespan Testing	Life test(room temperature)	JIS7021:B4	Ta = 25 °C IF 750mA	1000 Hrs	22	0
Ambient Testing ESD (HBM)	High temperature store	JIS7021:B10 MIL-STD-202:210A MIL-STD-750:2031	Ta=60°C ±5°C	1000 Hrs	22	0
	Low temperature store	JIS7021:B12	Ta=35°C ±5°C	1000 Hrs	22	0
	High temperature/ humidity test	JIS7021:B11 MIL-STD-202:103D	Ta=80°C ±5°C RH=85%	1000 Hrs	22	0
	Cold / Heat strike test	JIS7021::B4 MIL-STD-202:107D MIL-STD-750:1026	5min -35°C ±5°C - 100°C ±5°C 5min / 5min	50 Cycles	22	0
	Cold and heat cycle test	JIS7021:A3 MIL-STD-202:107D MIL-STD-705:105E	30 min / 30min / 30min -35°C 25°C 85°C 25°C 30min / 5min / 30min/ 5 min	50 Cycles	10	0

Criteria for Judging Damage

Items	Symbol	Test Condition	Criteria for Judging Damage	
			Min	Max
Forward Voltage	VF	IF=750mA	-	Initial Datex 1.1
Reverse Current	IR	VR=5V	-	50 μA
Luminous Intensity	IV	IF=750mA	Initial Datex 0.8	-