EVERBRIGHT LIMITED

EVERBRIGHT 1W HIGH POWER LED

Model :EV-H1WSRW-2

Company Name: _____

Confirmed By _____

DATE: _____

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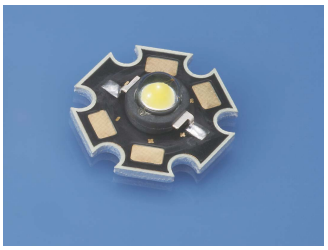
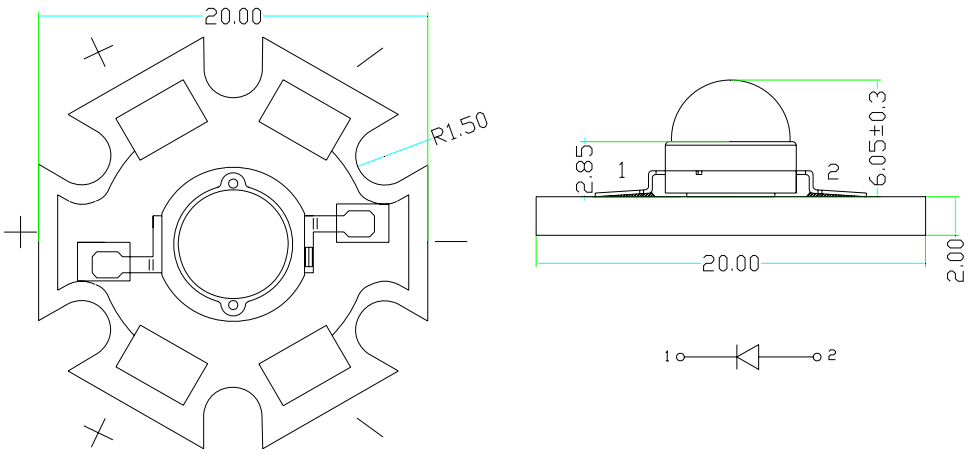
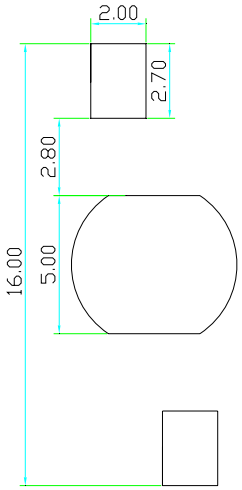
Description

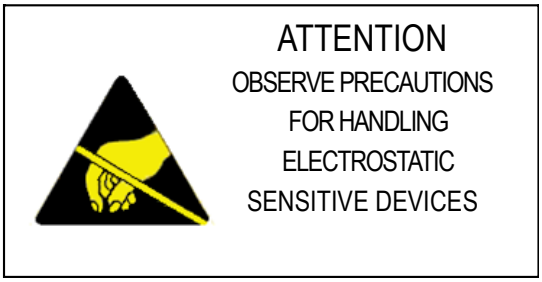
- Viewing angle:120 deg
- The materials of the LED dice is InGaN/GaN
- 20mm×20mm×8.05mm power-LED
- RoHS compliant lead-free soldering compatible



Package Outline







NOTES:

1. All dimensions are in millimeters (inches);
2. Tolerances are ±0.3mm (0.012inch) unless otherwise noted.

Absolute maximum ratings at Ta=25℃

Parameter	Symbol	Value	Unit
Power dissipation	Pd	1400	mW
Forward DC current	If	350	mA
Reverse DC voltage	Vr	5	V
Operating temperature range	Top	-40 ~+100	℃
Storage temperature range	Tstg	-40~+100	℃
Peak pulsing current	Ifp	1000	mA

Electro-optical characteristics at Ta=25℃

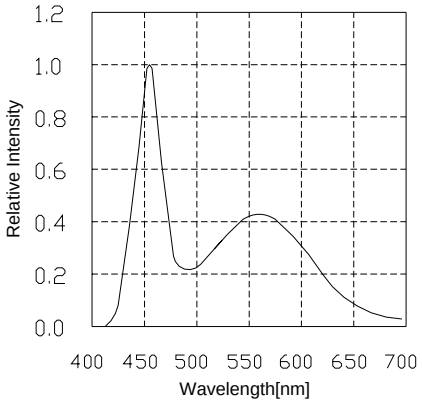
Parameter	Test Condition	Symbol	Value			Unit
			Min.	Typ.	Max.	
Forward voltage	If=350mA	Vf	3.0	--	4.0	V
Luminous intensity	If=350mA	Ø	40	--	60	lm
	If=350mA	Ø	60	--	80	lm
	If=350mA	Ø	80	--	100	lm
Reverse current	Vr=5V	Ir	--	--	50	μA
Chromaticity	If=350mA	A	(0.2610,0.2293)(0.2468,0.2361) (0.2654,0.2741)(0.2800,0.2670)			
		B	(0.2800,0.2670)(0.2654,0.2741) (0.2810,0.3009)(0.2950,0.2941)			
		K	(0.2950,0.2941)(0.2899,0.2967) (0.3168,0.3358)(0.3224,0.3341)			
		L	(0.2899,0.2967)(0.2810,0.3009) (0.3070,0.3389)(0.3168,0.3358)			

NOTE: (Tolerance: Ø ±10% , X/Y ±0.01 , Vf ±0.1V)
IFP Conditions : Pulse Width≦10msec. and Duty ≦1/10.

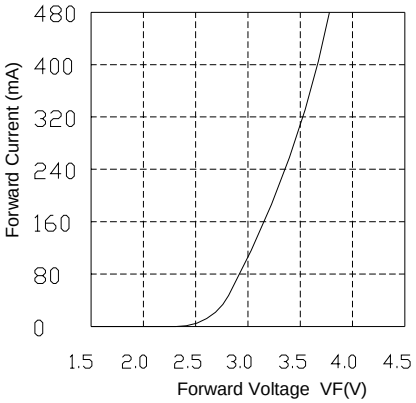
Optical characteristics curves

Spectral Distribution

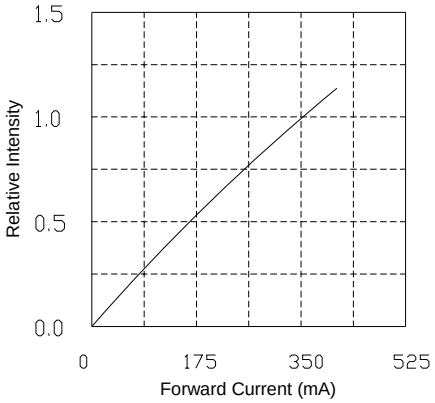
Relative Intensity vs. Wavelength (Ta=25°C)



Forward Voltage vs. Forward Current (Ta=25°C)

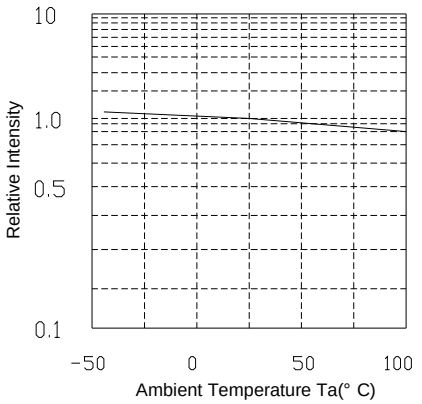


Relative Intensity vs. Forward Current (Ta=25°C)

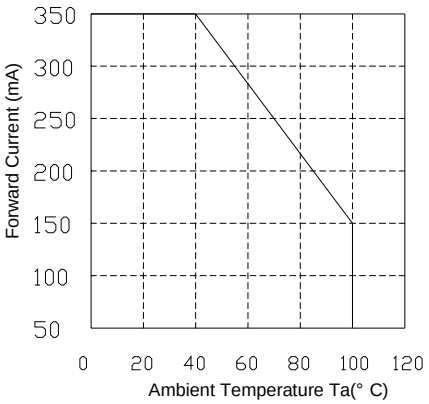


Derating

Relative Intensity vs. Ambient Temperature



Ambient Temperature vs. Maximum Forward Current



Forward Current vs. Chromaticity (Ta=25°C)

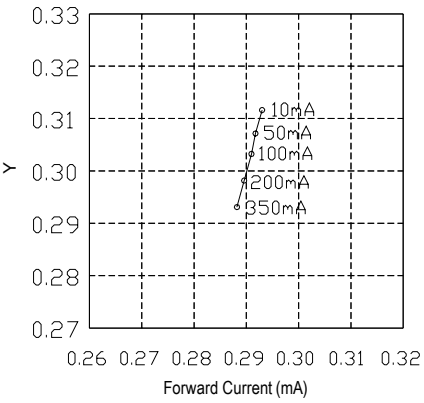
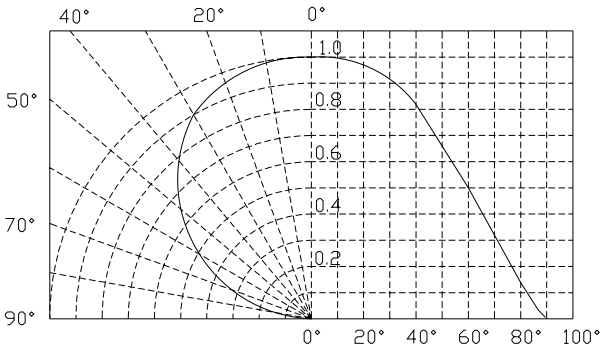


Diagram characteristics of radiation



Reliability

(1)TEST ITEMS AND RESULTS

Type	Test Item	Ref. Standard	Test Conditions	Note	Number of Damaged
Environmental Sequence	Resistance to Soldering Heat(Reflow Soldering)	JESD22-B106	Tsld=260℃,10sec	2 times	0/22
	Temperature Cycle	JESD22-A104	-40℃ 30min ↑↓5min 100℃ 30min	1000 cycle	0/100
	Thermal Shock	JESD22-A106	-40℃ 15min ↑↓ 100℃ 15min	1000 cycle	0/100
	High Temperature Storage	JESD22-A103	T_a=100℃	1000 hrs	0/100
	Low Temperature Storage	JESD22-A119	T_a=-40℃	1000 hrs	0/100
	Power temperature cycling	JESD22-A105	On 5min -40℃>15min ↑↓ ↑↓<15min Off5min 100℃>15min	100 cycle	0/100
Operation Sequence	Life Test	JESD22-A108	T_a=25℃ I_F=400mA	1000 hrs	0/100
	High Humidity Heat Life Test	JESD22-A101	60℃ RH=90% I_F=350mA	1000 hrs	0/100

(2)CRITERIA FOR JUDGING THE DAMAGE

Item	Symbol	Test Conditions	Criteria for Judgement	
			Min.	Max.
Forward Voltage	VF	IF=175mA	_	U.S.L*)×1.1
Reverse Current	IR	VR=5V	_	U.S.L*)×2.0
Luminous flux	Φ	IF=175mA.	L.S.L**)×0.7	_

U.S.L.: Upper Standard Level **L.S.L.: Lower Standard Level**