

INFRARED PRODUCTS SPECIFICATION

HIRTLB2-4D



Drawn by	Checked by	Approved by



DATE:2009/7/13

REV:D



HUEY JANN ELECTRONICS INDUSTRY CO., LTD.

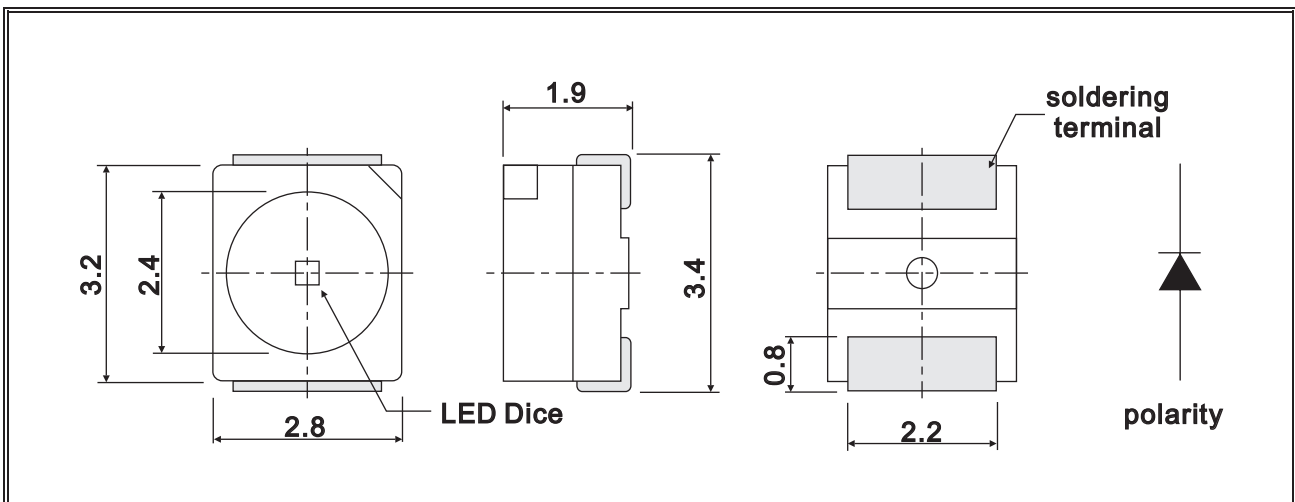
No.27 Line 466 Sec.2,Cannng-nan Rd. Wu-chi Town Taichung Shien, Taiwan, R.O.C.

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DEVICES

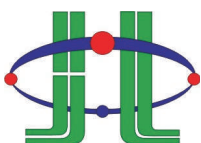
Part Number	Lens		Source	
	Color	Diffusion	Dice Source	Color
HIRTLB2-4D	Water clear	Non-Diffused	GaAlAs/GaAs	Infrared

PACKAGE DIMENSIONS



NOTE:

- 1.All dimensions are in millimeter.
- 2.specifications are subject to change without notice.
- 3.Tolerance is $\pm 0.3\text{mm}$ unless otherwise noted.

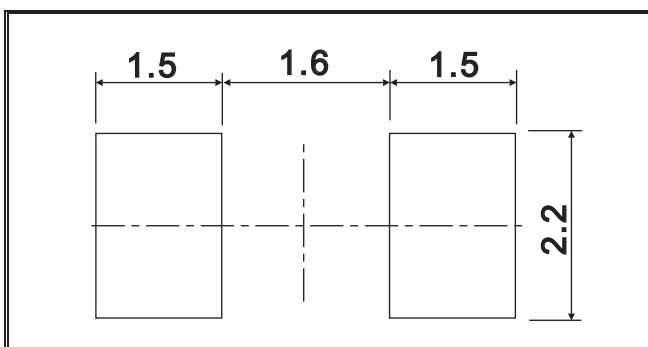


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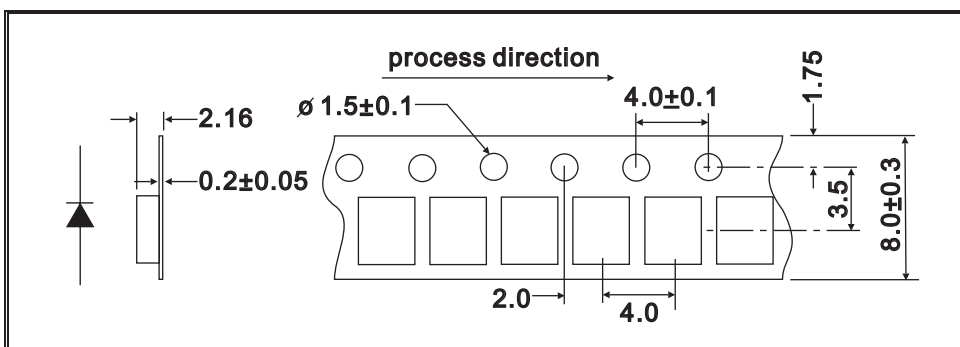
RECOMMENDED SOLDERING PATTERN



NOTE:

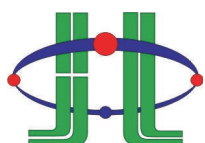
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TAPE SPECIFICATIONS



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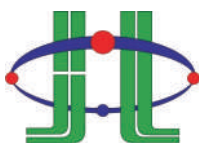
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ABSOLUTE MAXIMUM RATINGS

TA=25°C

PARAMETER	SYMBOL	MAX. RATING	UNIT
Power Dissipation	Pd	70	mW
Continuous Forward Current	IF	50	mA
Peak Forward Current *1	IFM	140	mA
Reverse Voltage	VR	5	V
LED Junction Temperature	Tj	100	°C
Operating Temperature	Topr	-40 ~ +85	°C
Storage Temperature	Tstg	-40 ~ +100	°C
Reflow Soldering (preheat 150 ~ 180°C 60 ~ 120 sec, solder temp 260°C 10 sec)			

*1.Duty Ratio = 1/10, Pulse Width = 0.1ms.



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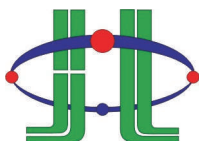
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ELECTRIC-OPTICAL CHARACTERISTICS

TA=25°C

PARAMETER	SYMBOL	TEST CONDITION	MIN	TYP	MAX	UNIT
View Angle of Half Power	2θ _{1/2}	IF=20mA		120		deg
Forward Voltage	V _F			1.20	1.45	V
Reverse Current	I _R	VR=5V			10	μA
Radiant Output Power *2	P _o	IF=20mA	1.2	2.0		mw/sr
Peak Emission Wavelength	λ _p			940		nm
Spectrum Width of Half Valve	Δλ			50		nm

*2. Tolerance: ±15% HUEY-JANN measuring equipment: 1. EXELTON 2001. 2. S370 made by U.D.T.



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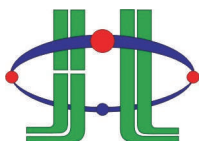
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RELIABILITY TEST

Classification	Test Item	Reference Standard	Test Conditions	Result
Endurance Test	Operation Life	MIL-STD-750:1026 MIL-STD-883:1005 JIS-C-7021 :B-1	Connect with a power if=20mA Ta=Under room temperature Test Time=1,000hrs	0/22
	High Temperature High Humidity Storage	MIL-STD-202:103B JIS-C-7021 :B-11	Ta=+85°C±5°C RH=90% ~ 95% Test Time=1000hrs	0/22
	High Temperature Storage	MIL-STD-883:1008 JIS-C-7021 :B-10	High Ta=+100°C±5°C Test Time=1,000hrs	0/22
	Low Temperature Storage	JIS-C-7021 :B-12	Low Ta=-40°C±5°C Test Time=1,000hrs	0/22
	Temperature Cycling	MIL-STD-202:107D MIL-STD-750:1051 MIL-STD-883:1010 JIS-C-7021 :A-4	-40°C ~ +25°C ~ +85°C ~ +25°C 60min 20min 60min 20min Test Time=200cycle	0/22
Environmental Test	Thermal Shock	MIL-STD-202:107D MIL-STD-750:1051 MIL-STD-883:1010	-40°C±5°C ~ +85°C±5°C 20min 20min Test Time=200cycle	0/22

*Failure Criteria:

1. VF arise $\geq 10\%$
2. IV decline $\geq 30\%$
3. A failure is an LED that is open or shorted

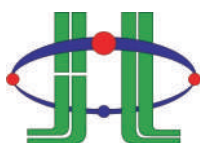
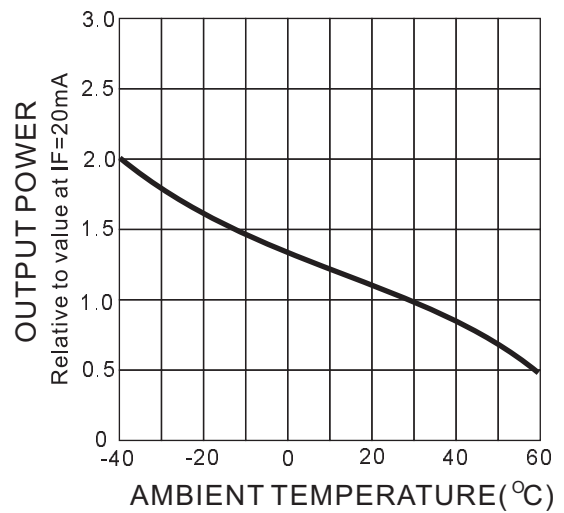
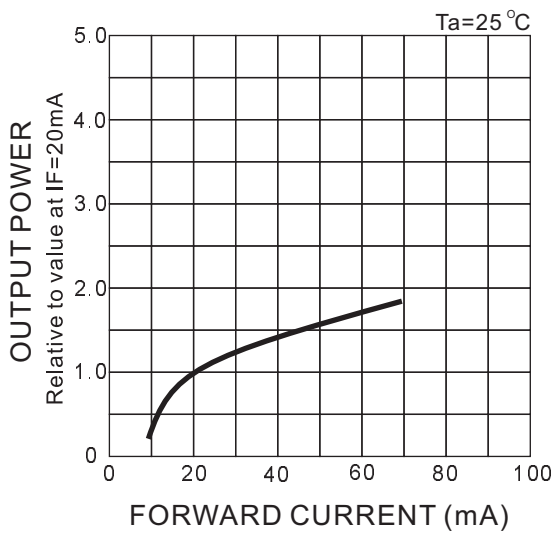
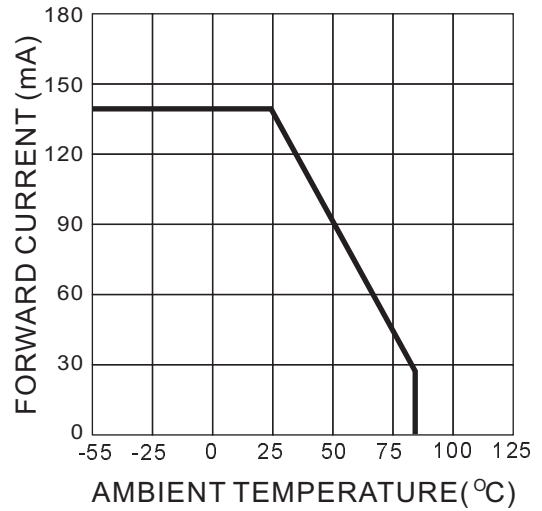
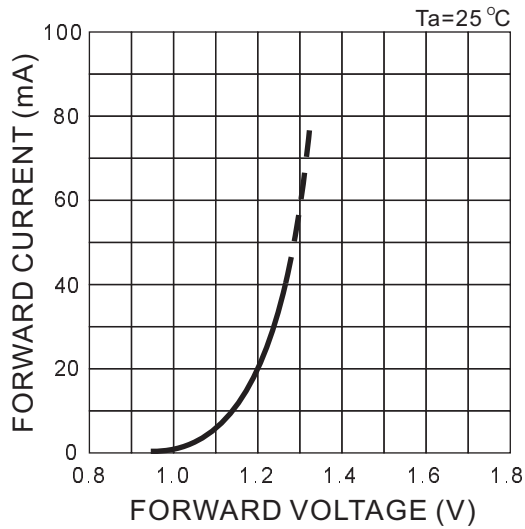


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TYPICAL ELECTRICAL OPTICAL CHARACTERISTICS CURVES

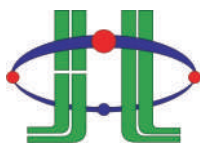
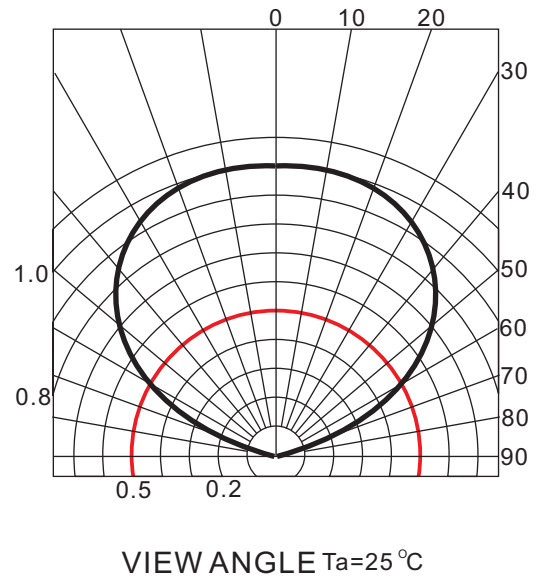
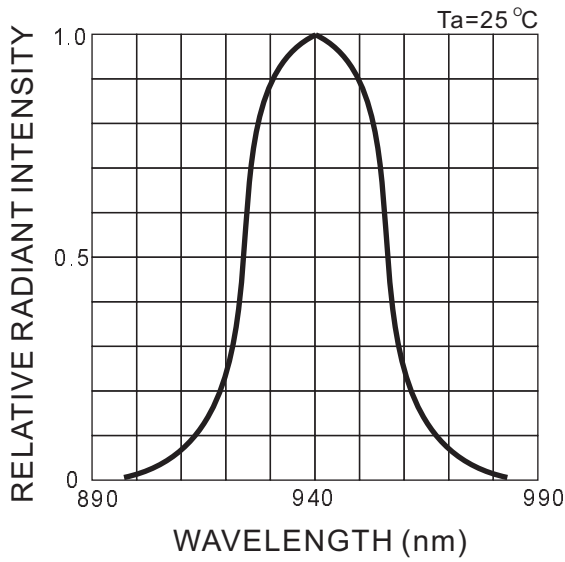


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