

INFRARED PRODUCTS SPECIFICATION

HIRTLB2-4C

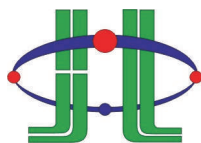


Drawn by	Checked by	Approved by



DATE:2009/11/11

REV:C



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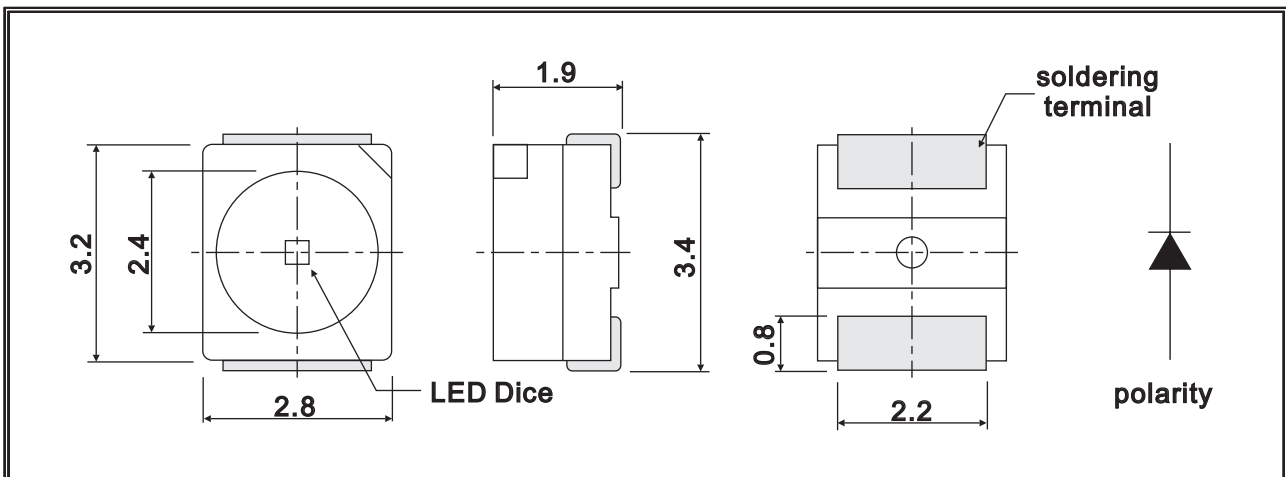
No.27 Line 466 Sec.2,Cannng-nan Rd. Wu-chi Town Taichung Shien, Taiwan, R.O.C.

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DEVICES

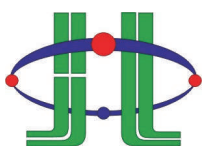
Part Number	Lens		Source	
	Color	Diffusion	Dice Source	Color
HIRTLB2-4C	Water clear	Non-Diffused	GaAIAs/GaAs	Infrared

PACKAGE DIMENSIONS



NOTE:

- 1.All dimensions are in millimeter.
- 2.specifications are subject to change without notice.
- 3.Tolerance is 0.3mm unless otherwise noted.

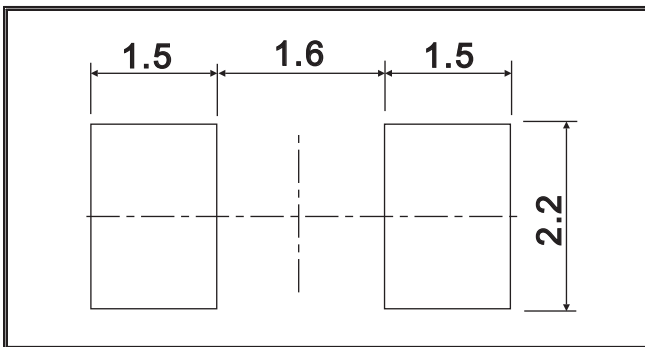


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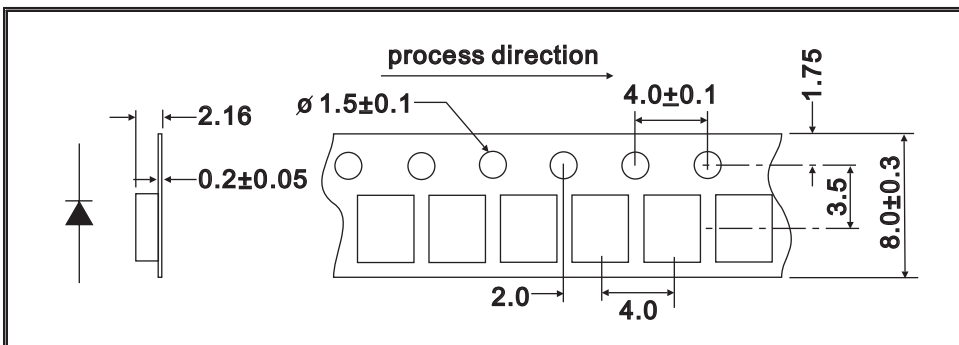
RECOMMENDED SOLDERING PATTERN



NOTE:

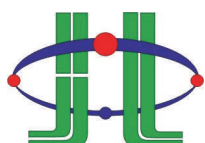
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TAPE SPECIFICATIONS



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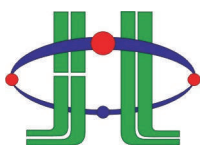
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ABSOLUTE MAXIMUM RATINGS

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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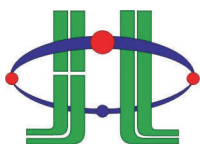
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ELECTRIC-OPTICAL CHARACTERISTICS

TA=25°C

PARAMETER	SYMBOL	TEST CONDITION	MIN	TYP	MAX	UNIT
View Angle of Half Power	2θ1/2	IF=20mA		120		deg
Forward Voltage	VF			1.20	1.45	V
Reverse Current	IR	VR=5V			10	μA
Radiant Output Power *2	Po	IF=20mA	1.0	1.8		mw/sr
Peak Emission Wavelength	λp			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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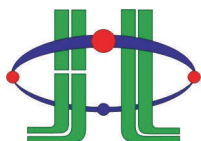
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RELIABILITY TEST

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
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

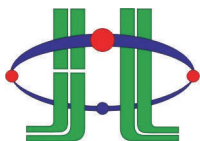
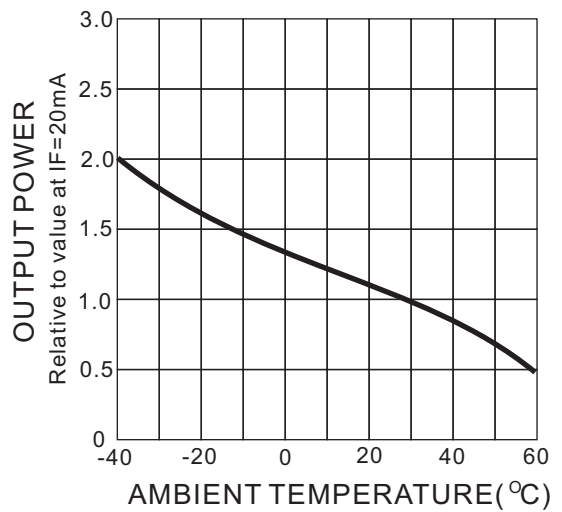
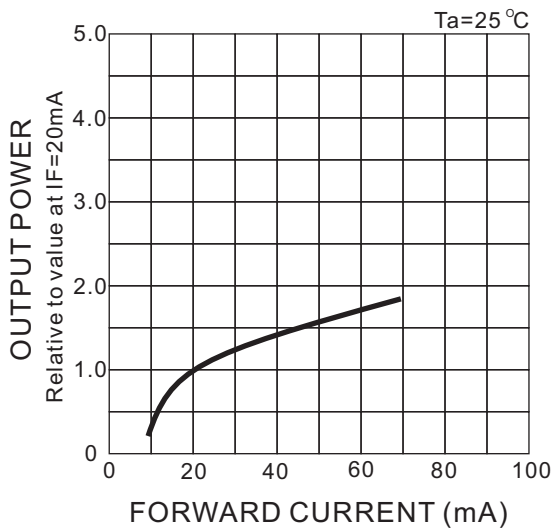
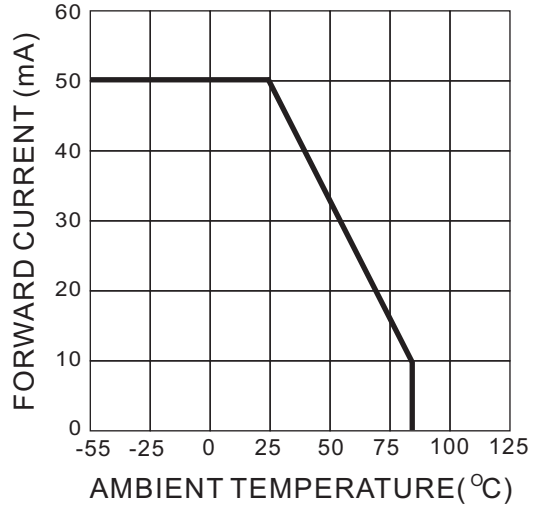
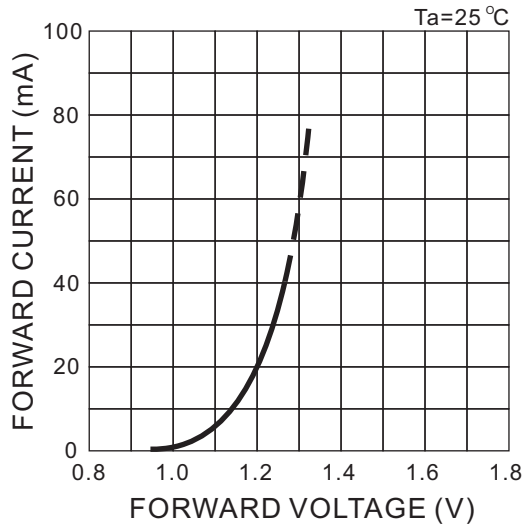


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TYPICAL ELECTRICAL OPTICAL CHARACTERISTICS CURVES

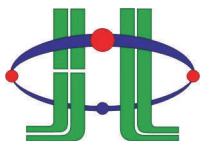
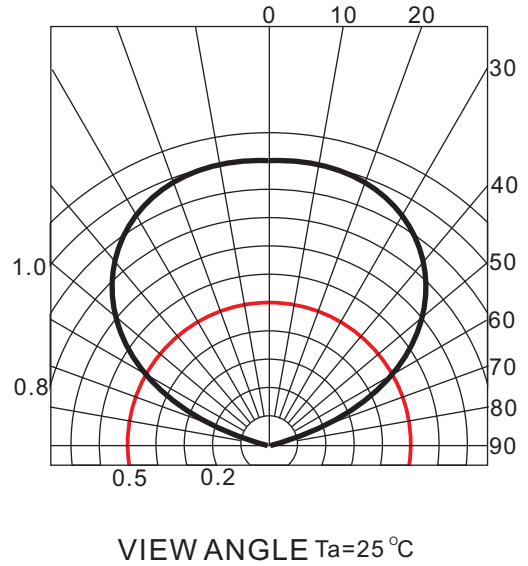
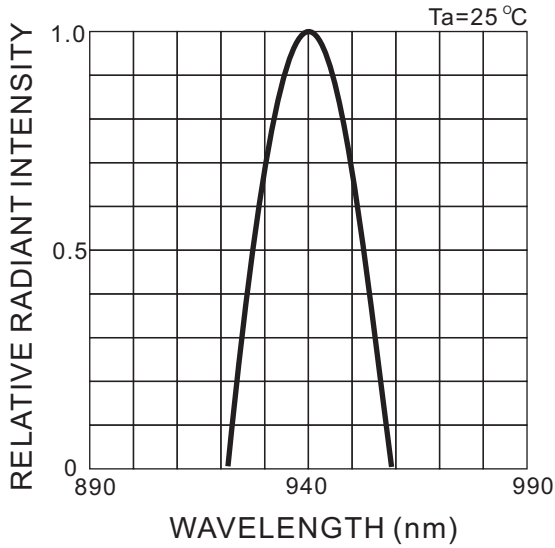


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