

# VISIBLE LIGHT PRODUCTS SPECIFICATION

## TOP LED

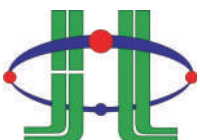


Drawn by	Checked by	Approved by



DATE:2007/10/18

REV:A



**HUEY JANN ELECTRONICS INDUSTRY CO., LTD.**

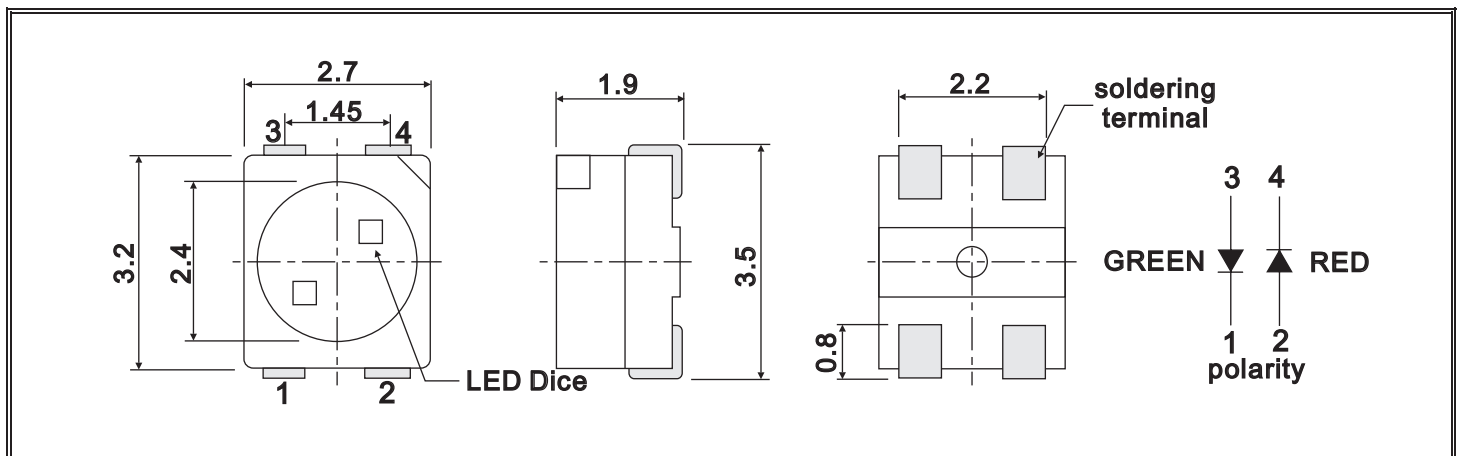
No.27 Line 466 Sec.2,Cannng-nan Rd. Wu-chi Town Taichung Shien, Taiwan, R.O.C.

TEL:+886-4-26393976 FAX:+886-4-26393125

DEVICES

Part Number	Lens		Source	
	Color	Diffusion	Dice Source	Color
HTLB4-45AOR3BG	Water clear	Non-Diffused	AllnGaP/GaAs & AllnGaP/GaAs	Super Fresh Red & Yellow Green

PACKAGE DIMENSIONS

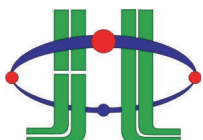
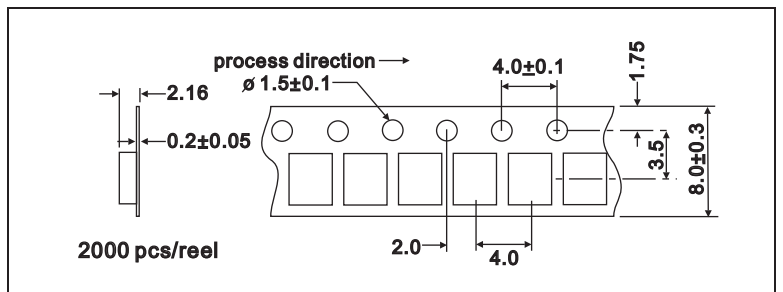
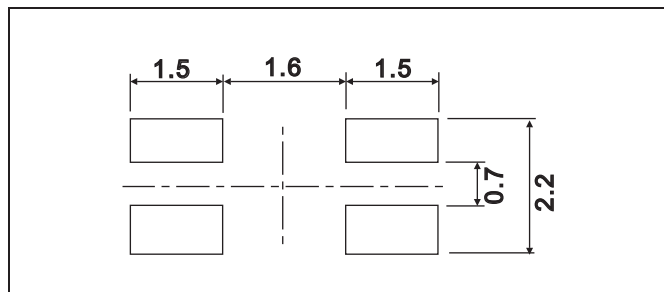


NOTE:

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

RECOMMENDED SOLDERING PATTERN

TAPE SPECIFICATIONS



HUEY JANN ELECTRONICS INDUSTRY CO., LTD.

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

TEL:+886-4-26393976 FAX:+886-4-26393125

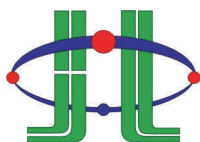
**ABSOLUTE MAXIMUM RATINGS**

TA=25°C

PARAMETER	SYMBOL	MAX. RATING		UNIT
		Super Fresh Red	Yellow Green	
Power Dissipation	Pd	100	100	mW
Continuous Forward Current	IF	25	25	mA
Peak Forward Current *1	IFM	50	50	mA
Reverse Voltage	VR	5	5	V
LED Junction Temperature	Tj	100		°C
Operating Temperature	Topr	-40 ~ +85		°C
Storage Temperature	Tstg	-40 ~ +85		°C
Reflow Soldering (preheat 150-180°C 60-120sec, soldering temp 260°C 5sec)				

\*1.Duty Ratio=0.1%,Pulse Width=10us.

\*2.Iron soldering in 350°C within 5 seconds will not cause damage to the dice. But be aware of the high temperature will not only make the epoxy soften but also cause the lead moving and the gold wire broken and even open. So before returning to the normal temperature PLEASE AVOID any serious pressure on the top of epoxy and lead.



**HUEY JANN ELECTRONICS INDUSTRY CO., LTD.**

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

TEL:+886-4-26393976 FAX:+886-4-26393125

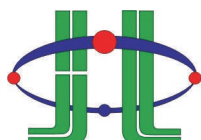
**ELECTRIC-OPTICAL CHARACTERISTICS**

TA=25°C

PARAMETER	SYMBOL	TEST CONDITION		MIN	TYP	MAX	UNIT
View Angle of Half Power	2θ1/2	IF=20mA	Red		120		deg
			Green				
Forward Voltage	VF		Red		2.0	2.5	V
			Green		2.2	2.4	
Luminous Intensity *2	IV		Red	35	60		mcd
			Green	20	35		
Peak Emission Wavelength	λp		Red		635		nm
			Green		575		
Dominate Wave Length *3	λd(HUE)		Red		625		nm
		Green		572			

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

\*3.The dominate wavelength , λ d, is derived from the CIE Chromaticity Diagram and represents the color of the device.



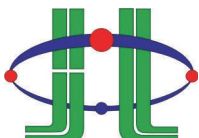
**HUEY JANN ELECTRONICS INDUSTRY CO., LTD.**

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

TEL:+886-4-26393976 FAX:+886-4-26393125

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=+65°C±5°C RH=90% ~ 95% Test Time=240hrs	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
	Environmental Test	Temperature Cycling	MIL-STD-202:107D MIL-STD-750:1051 MIL-STD-883:1010 JIS-C-7021 :A-4	-35°C ~ +25°C ~ +85°C ~ +25°C 60min 20min 60min 20min Test Time=5cycle
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=10cycle	0/22

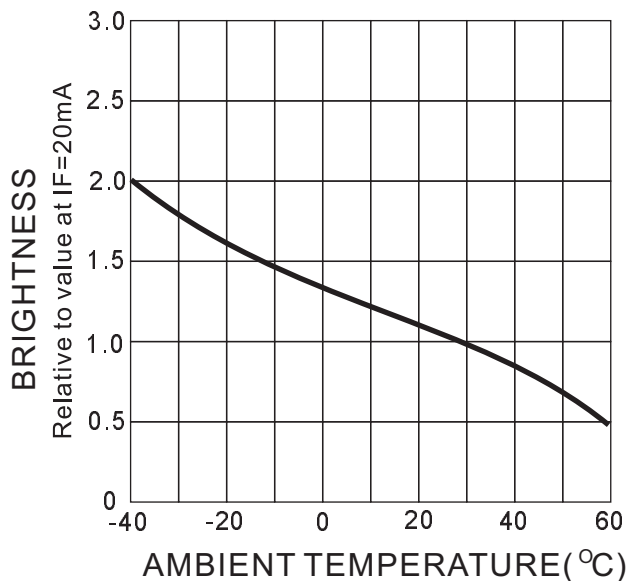
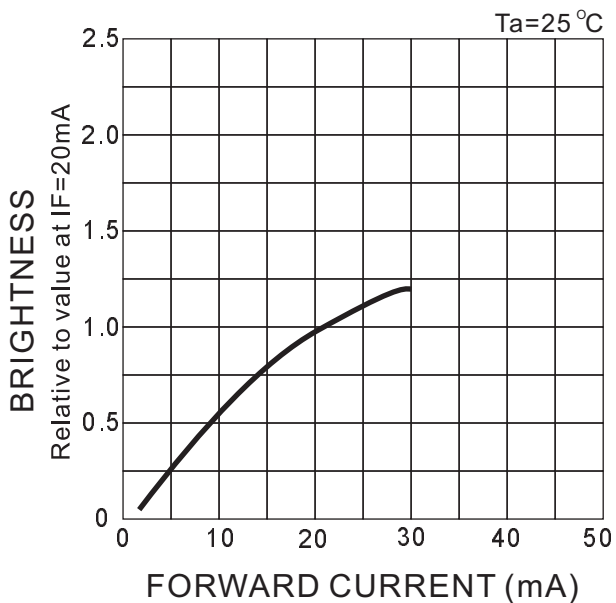
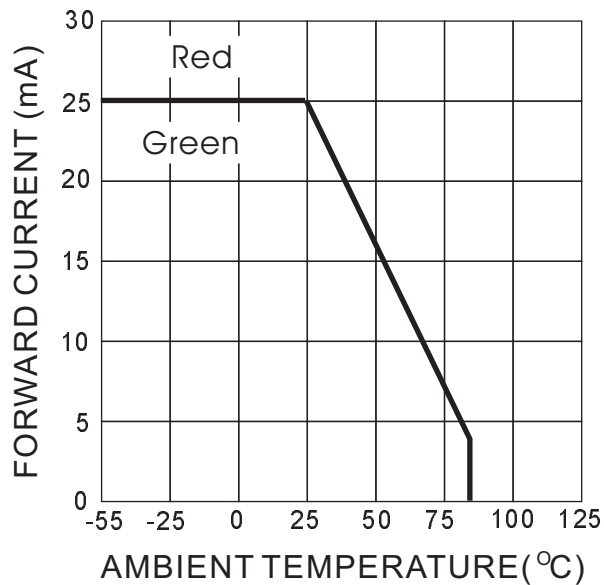
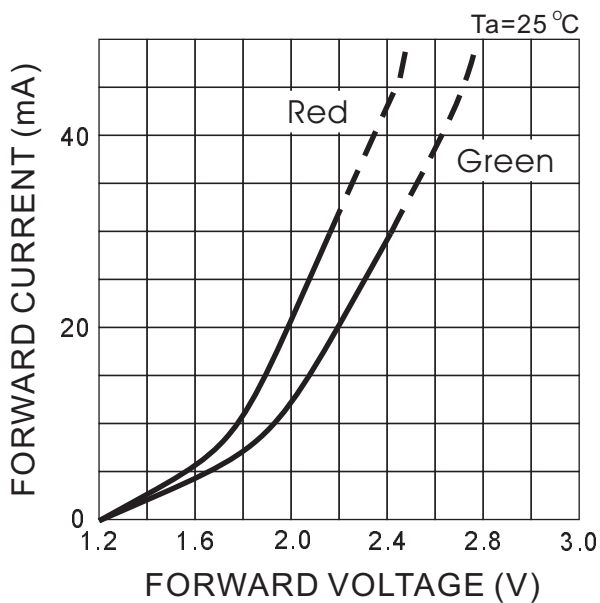


**HUEY JANN ELECTRONICS INDUSTRY CO., LTD.**

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

TEL:+886-4-26393976 FAX:+886-4-26393125

TYPICAL ELECTRICAL OPTICAL CHARACTERISTICS CURVES

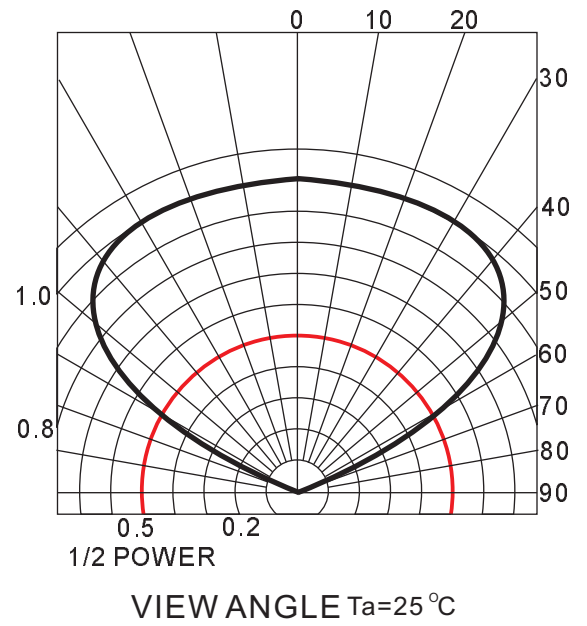
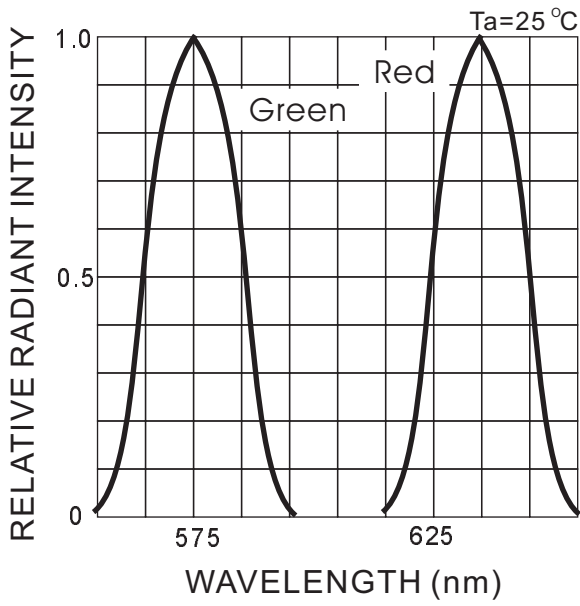


**HUEY JANN ELECTRONICS INDUSTRY CO., LTD.**

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

TEL:+886-4-26393976 FAX:+886-4-26393125

TYPICAL ELECTRICAL OPTICAL CHARACTERISTICS CURVES



**HUEY JANN ELECTRONICS INDUSTRY CO., LTD.**

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

TEL:+886-4-26393976 FAX:+886-4-26393125