

INFRARED PRODUCTS SPECIFICATION

HPTCL-150J

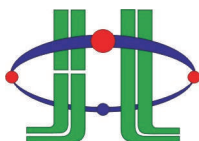


Drawn by	Checked by	Approved by



DATE:2009/11/11

REV:C



HUEY JANN ELECTRONICS INDUSTRY CO., LTD.

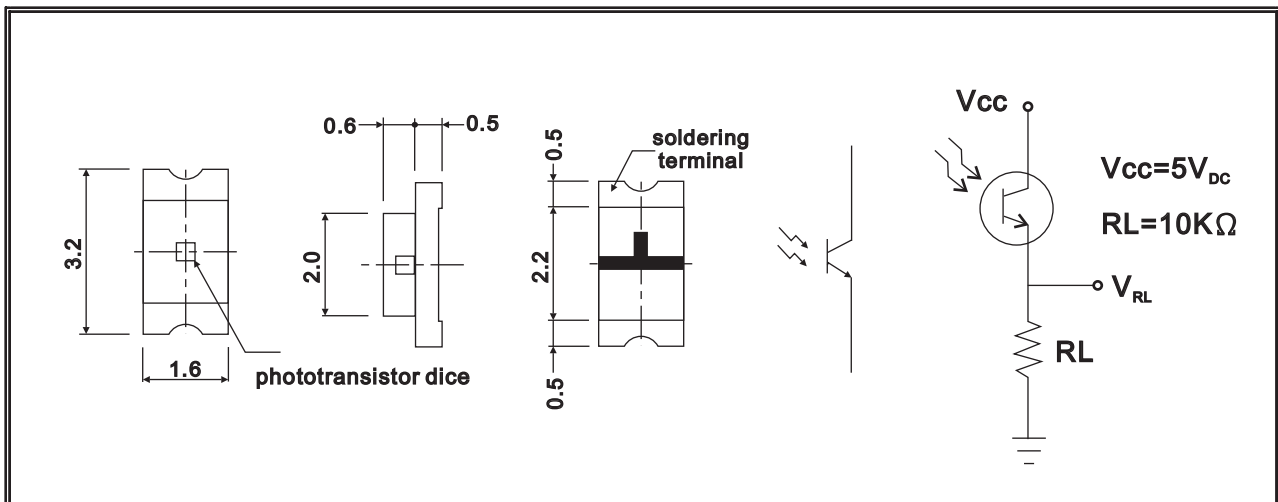
No.27 Line 466 Sec.2,Cannng-nan Rd. Wu-chi Town Taichung Shien, Taiwan, R.O.C.

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

DEVICES

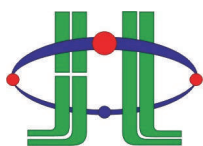
Part Number	Lens		Source	
	Color	Diffusion	Dice Source	Color
HPTCL-150J	Water clear	Non-Diffused	-----	Phototransistor

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.



HUEY JANN ELECTRONICS INDUSTRY CO., LTD.

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

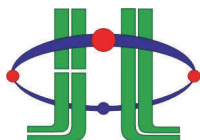
TEL:+886-4-26393976 FAX:+886-4-26393125

ABSOLUTE MAXIMUM RATINGS

TA=25°C

PARAMETER	SYMBOL	MAX. RATING	UNIT
Power Dissipation	Pd	100	mW
Sensitive Area	AA	0.38	mm
Collector-Emitter Voltage	Vceo	30	V
Emitter-Collector Voltage	Veco	5	V
Operating Temperature	Topr	-40 ~ +85	°C
Storage Temperature	Tstg	-40 ~ +100	°C
Dip Soldering Temperature (3mm from case Bottom 260 °C for 5 seconds)			

*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.

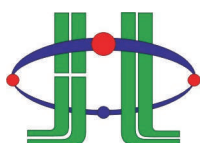
TEL:+886-4-26393976 FAX:+886-4-26393125

ELECTRIC-OPTICAL CHARACTERISTICS

TA=25°C

PARAMETER	SYMBOL	TEST CONDITION	MIN	TYP	MAX	UNIT
Angle of Half Sensitive	2θ1/2			140		deg
Collector-Emitter Breakdown Voltage	BVceo	Ic=100 μA, Ib=0	30			V
Emitter-Collector Breakdown Voltage	BVeco			5		V
Collector-Emitter Saturation Voltage	Vces	Ic=2mA, Ib=100 μA			0.3	V
Minimum operational voltage	V _{RL}	2000Lux,Icc=320 μA 500Lux,Icc=80 μA		2.5 1.0		V
Light Current	I _{RL}	2000Lux 1000Lux 100Lux		300 150 20		μA
Collector Dark Current	I _{ceo}	Vce=5V, Ee=0mw/cm ²			100	nA
Ries Time	Tr	Vcc=5V, Ic=1mA, RL=1000Ω		15		μS
Fall Time	Tf			15		μS
Peak Wavelength	λ _p			570		nm

*1.The dominate wavelength , λ_d, is derived from the CIE Chromaticity Diagram and represents the color of the device.

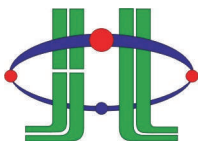
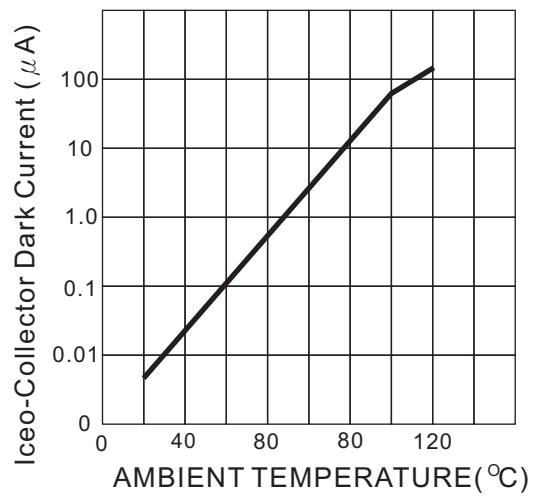
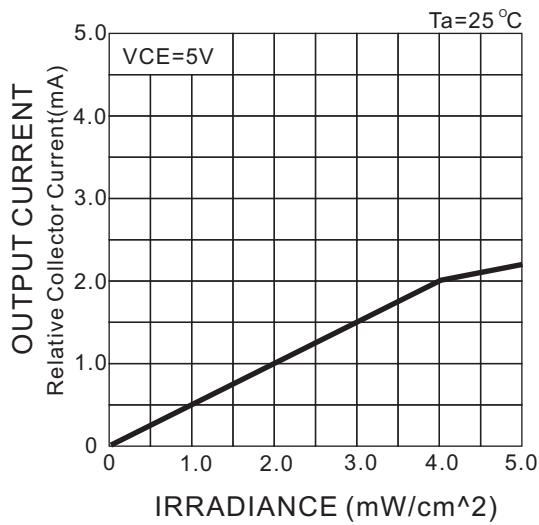
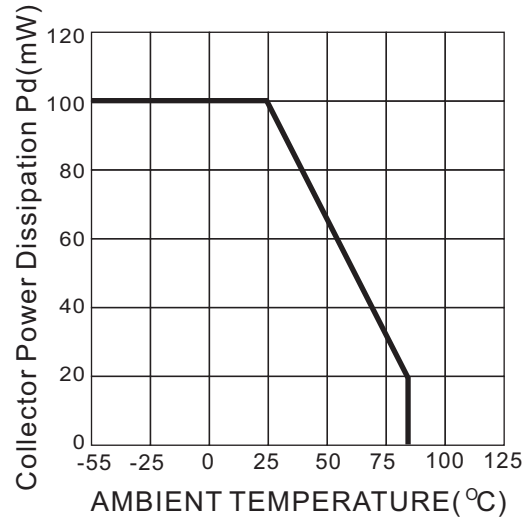
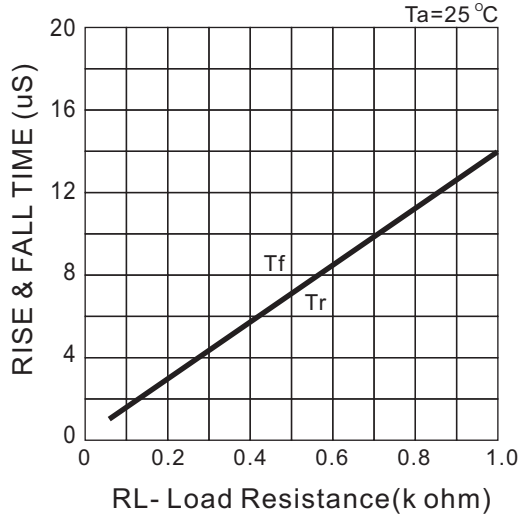


HUEY JANN ELECTRONICS INDUSTRY CO., LTD.

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

TYPICAL ELECTRICAL OPTICAL CHARACTERISTICS CURVES

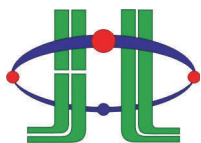
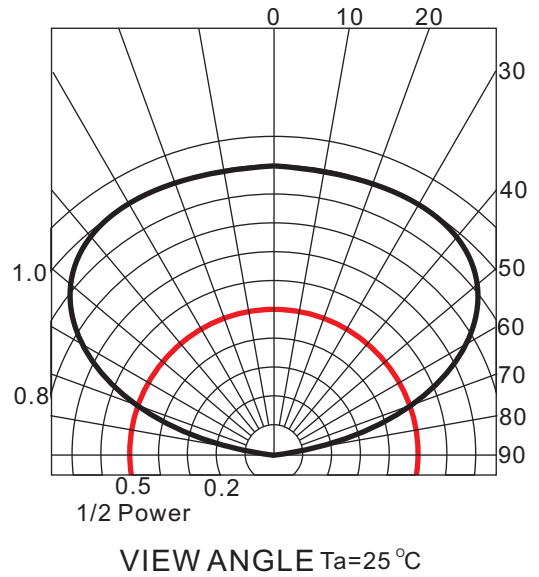
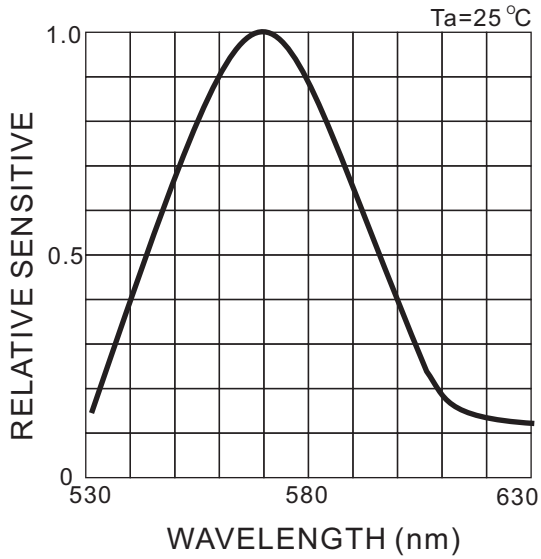


HUEY JANN ELECTRONICS INDUSTRY CO., LTD.

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

Precautions For Use

1. Over-current-proof

Customer must apply resistors for protection , otherwise slight voltage shift will cause big current change (Burn out will happen).

2. Storage

2.1 Do not open moisture proof bag before the products are ready to use.

2.2 Before opening the package, the LEDs should be kept at 30°C or less and 90%RH or less.

2.3 The LEDs should be used within a year.

2.4 After opening the package, the LEDs should be kept at 30°C or less and 60%RH or less.

2.5 The LEDs should be used within 168 hours (7 days) after opening the package.

2.6 If the moisture absorbent material (silica gel) has faded away or the LEDs have exceeded the storage time, baking treatment should be performed using the following conditions. Baking treatment : 60 5°C for 24 hours.

3. Soldering Condition

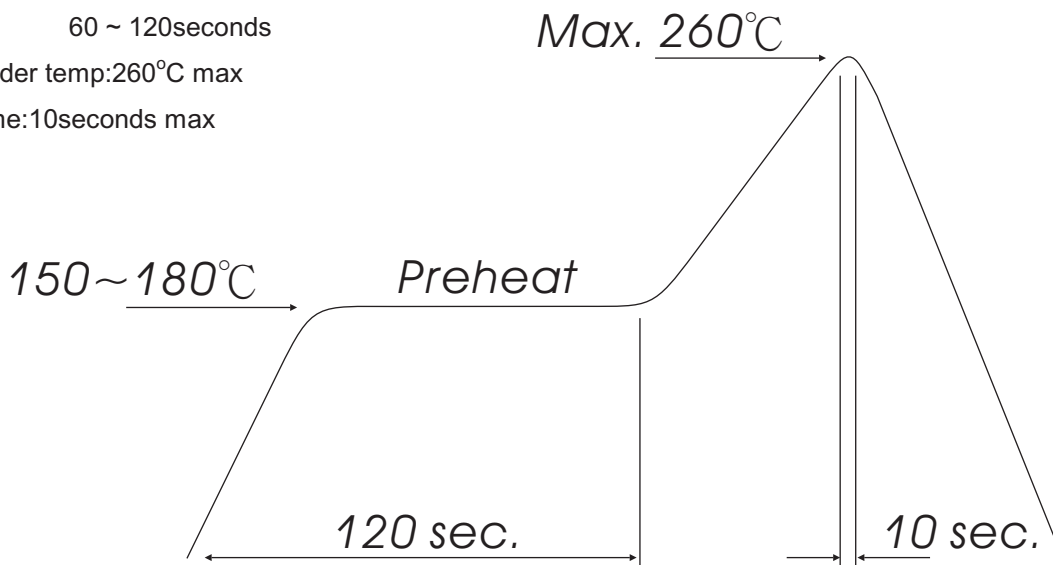
3.1 Pb-free solder temperature profile

Preheat:150 ~ 180°C

60 ~ 120seconds

Solder temp:260°C max

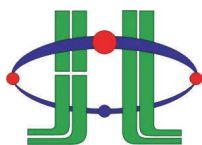
Time:10seconds max



3.2 Reflow soldering should not be done more than two times.

3.3 When soldering, do not put stress on the LEDs during heating.

3.4 After soldering, do not warp the circuit board.



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