Harvatek 4.5x1.5x5.7mm SIDE LOOK PT LED
HV-130S108C

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2. A critical component in any component of a life support device or system whose failure to perform can be reasonably expected to cause the failure of the life support device or system, or to affect its safety or effectiveness.

Compliance and Certification

ISO9002, QS9000 and ISO14001 Certified
RoHS Compliant

Orderable Information

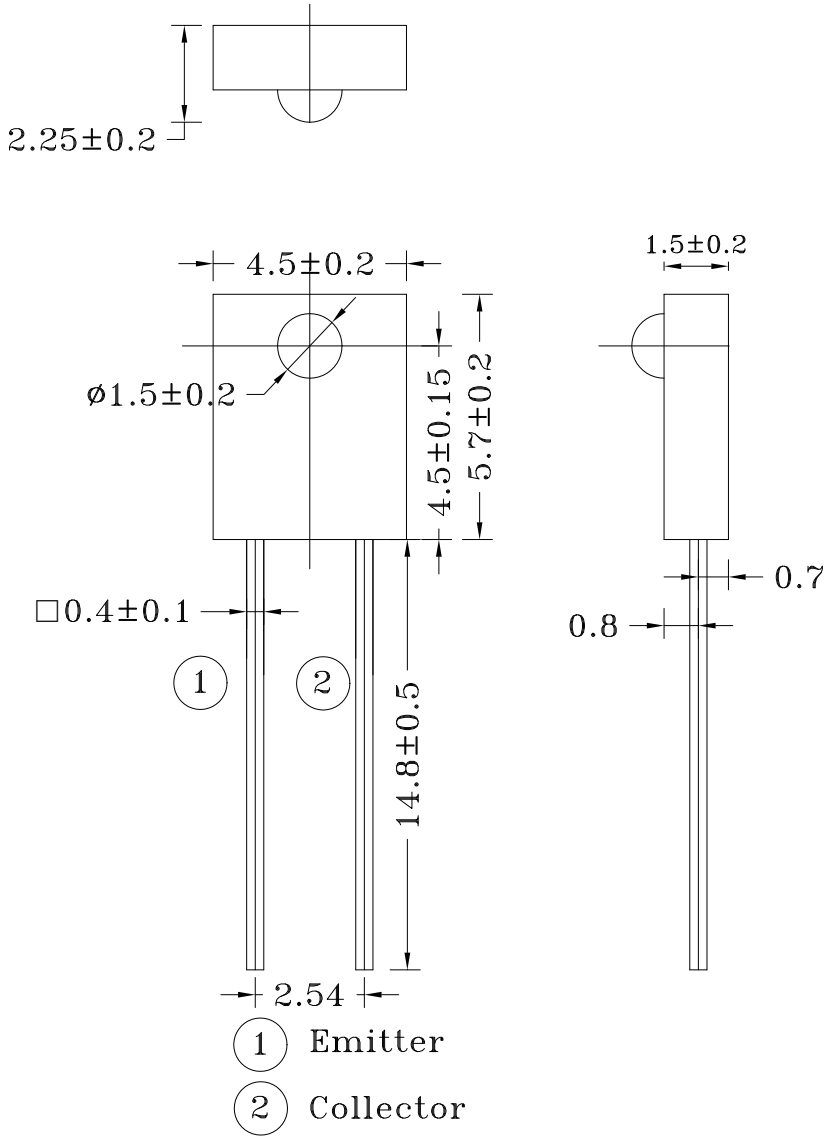
H V - 1 3 0 S 1 0 8 C

Series Name	Color Code	Remark
HV : **HARVATEK**	**130 :** **400-1100nm Silicon PT Chip** **S108:** **4.5x1.5x5.7mm Side Look LED, 2.25mm Lens.** **C : Water Clear.**	

Features:

- Stable Color
- Popular 4.5x1.5x5.7mm through hole package, 2.25mm lens height.
- Water Clear Lens.

Package Dimensions



Notes:
1.All dimensions are millimeters.
2.Tolerance is +/-0.25mm unless otherwise noted.
3.Specifications are subject to change without notice.

Absolute Maximum Ratings at Ta=25℃

Parameter	Symbol	Rating	Unit
Collector Current	Ic	20	mA
Operating Temperature	Topr	-40to+85	℃
Storage Temperature	Tstg	-40to+100	℃
Soldering Temperature*1	Tsol	260±5	℃
Power Dissipation	Pd	75	mW
Collector-Emitter Voltage	Vceo	30	V
Emitter-Collector Voltage	Veco	5	V

*1: Soldering time ≦ 5 seconds .

Electrical and Optical Characteristic

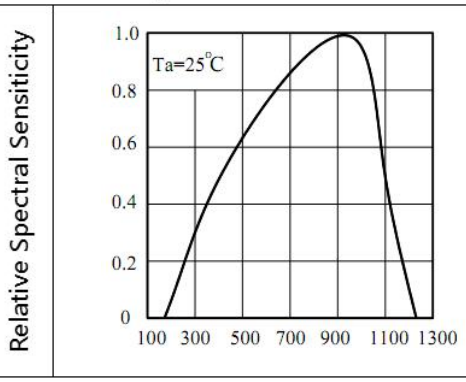
Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
On State Collector Current	$I_{C(on)}$	V_{CE}=5V Ee=0.555mW/cm2	1.0	/	/	mA
Collector Dark Current	Id	Vce=20V	/	/	100	nA
Collector – Emitter Breakdown Voltage	BVceo	Ic=100uA Ee=0mW/cm2	30	/	/	V
Emitter-Collector Breakdown Voltage	B Veco	Ie=100uA Ee=0mW/cm2	5	/	/	V
Collector-Emitter Saturation Voltage	Vce(sat)	IC=2mA Ee=1mW/cm2	/	/	0.4	V
Peak Wavelength	λρ	/	/	940	/	nm
Rang of Spectral Bandwidth	Δλ	/	400	940	1100	nm

Specifications for Bin Grading:

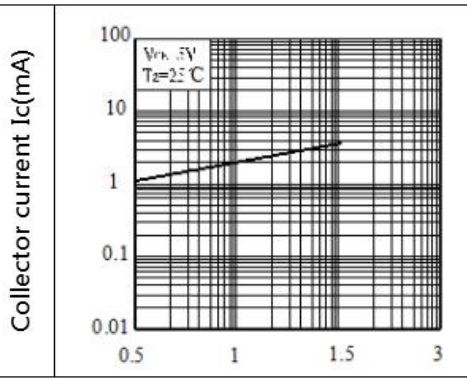
I_C (mA) (Vce=5V, Ee=0.555mW/cm2)		
Grade	Min.	Max.
Y1	1.00	1.87
Y2	1.53	2.31
Y3	1.89	2.69
Y4	2.21	3.52
Y5	2.88	5.50

Typical Electro-Optical Characteristics Curves

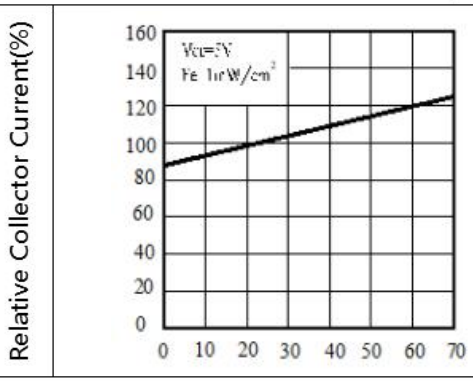
Spectral Distribution



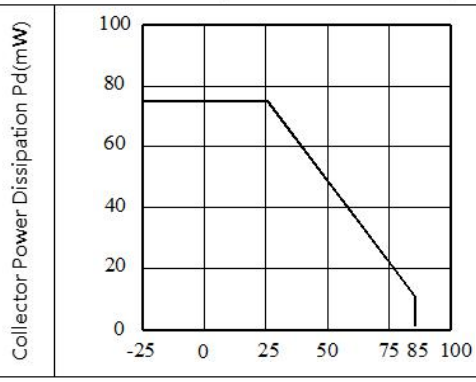
Collector Current vs.Irradiance



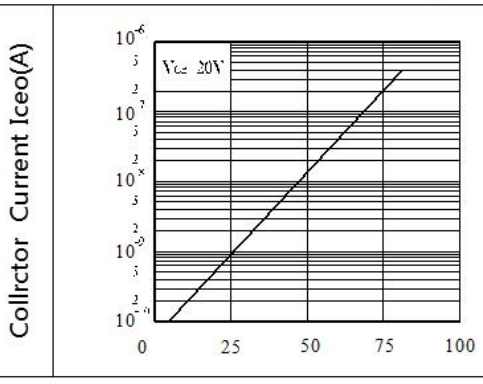
Relative Collector Current vs.Ambient Temperature



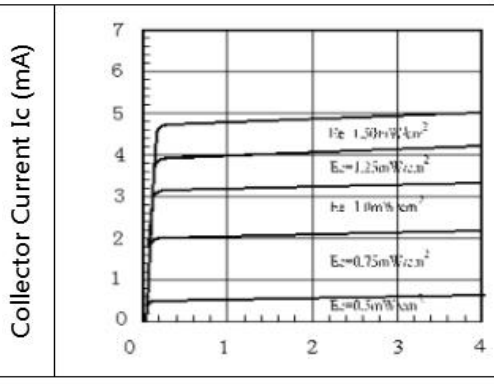
Collector Power Dissipation vs.Ambient Temperature



Collector Dark Current vs.Ambient Temperature



Collector Current VS.Collector-Emitter Voltage



Reliability test items and conditions：

The reliability of products shall be satisfied with items listed below.

Confidence level：97%

LTPD:3%

No	Item	Test Conditions	Test Hours/Cycle	Sample Size	Failure Judgment Criteria	Ac/Er
1	Solder Heat	TEMP:260℃±5℃	10 SEC	76 PCS	Iv≦Ivt*0.5 or Vf≧U or Vf≦L	0/1
2	Temperature Cycle	H:+100℃ 15min ∫ 5min L:-40℃ 15min	300 CYCLES	76 PCS		0/1
3	Thermal Shock	H:+100℃ 5min ∫ 10sec L:-10℃ 5min	300 CYCLES	76 PCS		0/1
4	High Temperature Storage	TEMP:100℃	1000 HRS	76 PCS		0/1
5	Low Temperature Storage	TEMP:-40℃	1000 HRS	76 PCS		0/1
6	DC Operating Life	TEMP:25℃ IF=20mA	1000 HRS	76 PCS		0/1
7	High Temperature / High Humidity	85℃/85%RH	1000 HRS	76 PCS		0/1

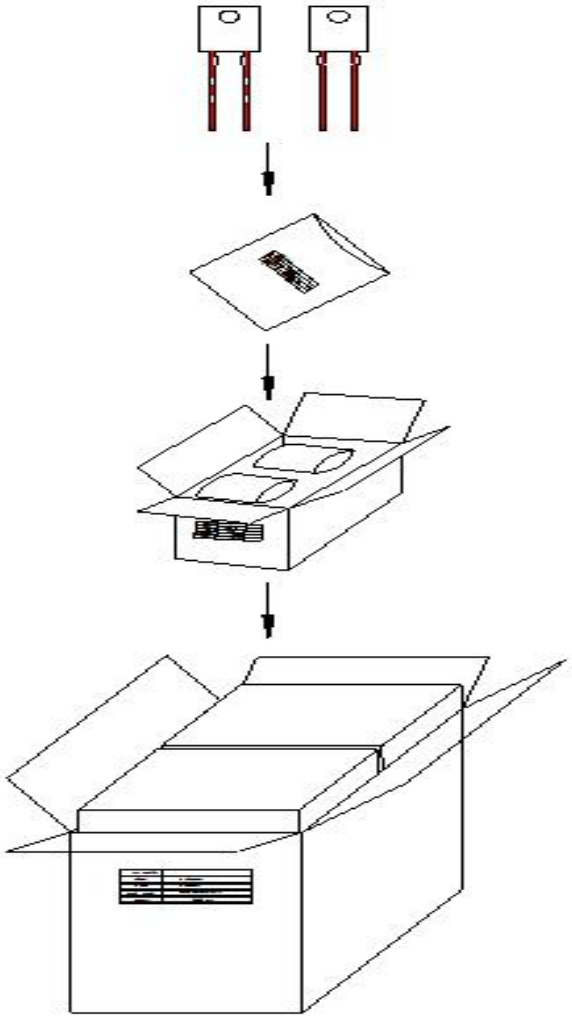
Note：Ivt：To test Iv value of the chip before the reliability test.

Iv：The test value of the chip that has completed the reliability test

U：Upper Specification Limit

L：Lower Specification Limit

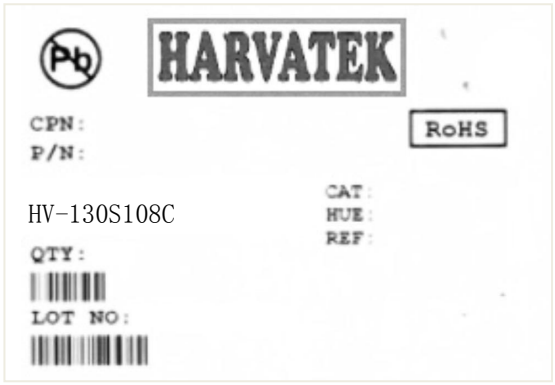
Packing Specification:



1000PCS/Bag

8000PCS/In-Carton

80000PCS/Out-Carton



Revision History

Revision	Page	Version No.	Revision Date
Initial Release		1.0	07-20-2018
Modifies Electrical and Optical Characteristic	6	1.1	11-11-2019