

**Harvatek 9.6\*5.6\*9.0mm Transmissive Sensor  
HV-YC0026H-MP9BA**

Official Product	HV-YC0026H-MP9BA	Customer Part No.		Data Sheet No.
	*****	*****		HV-YC0026H-MP9BA
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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.

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## Compliance and Certification

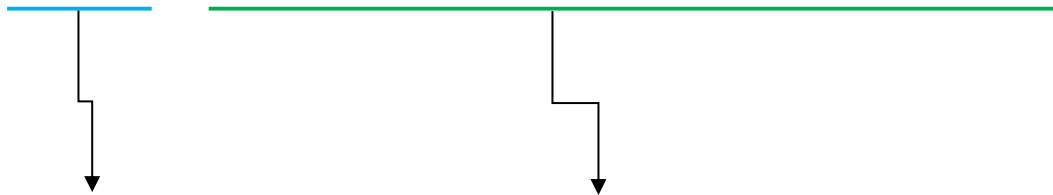
ISO9002, QS9000 and ISO14001 Certified

RoHS Compliant



## Orderable Information

H V - Y C 0 0 2 6 H - M P 9 B A



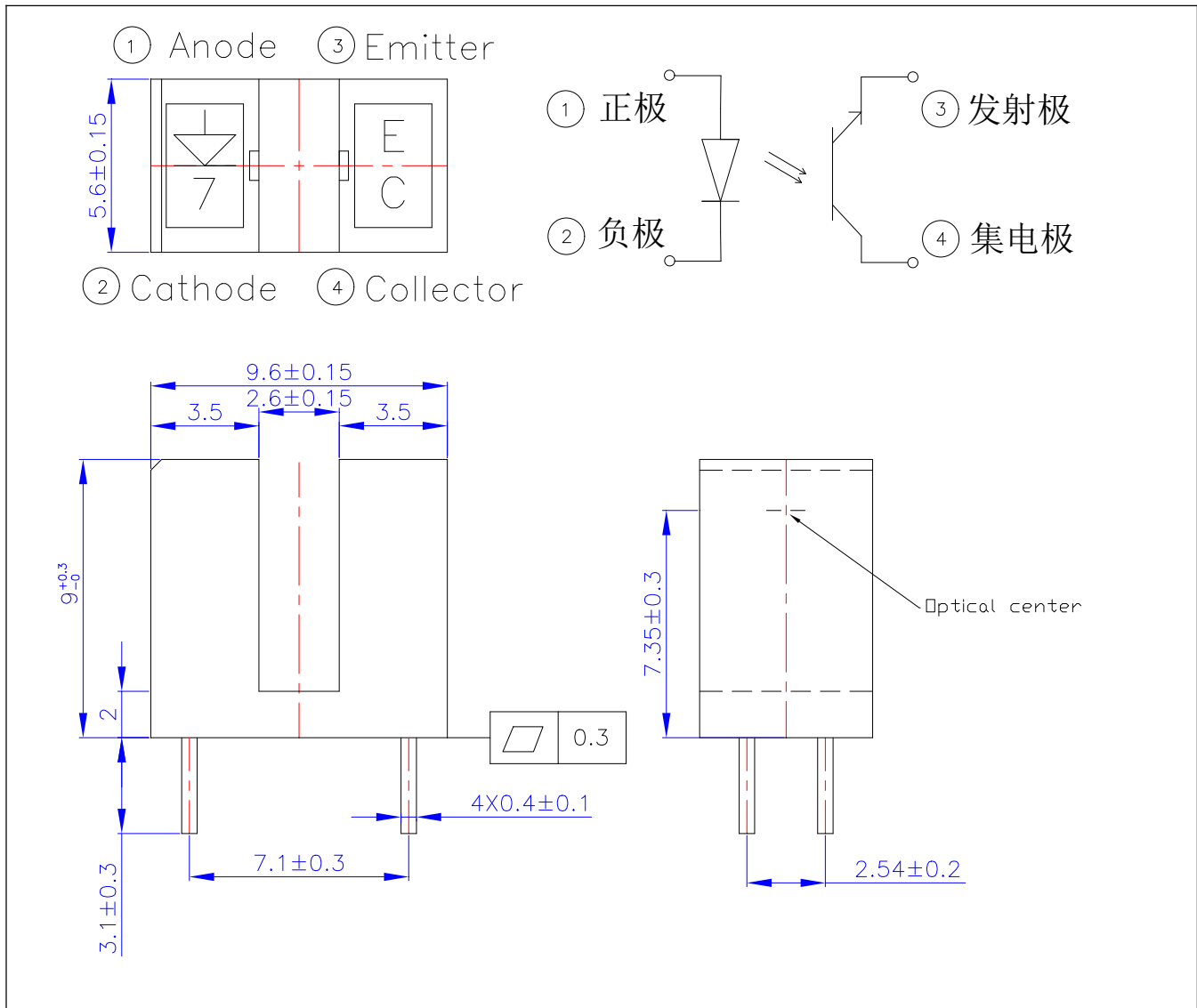
Series Name	Color Code	Remark
HV : HARVATEK	YC00 : 9.6*5.6*9.0mm Transmissive Sensor. With AlGaAs Infrared emitter & Silicon Phototransistor. 26H : HARVATEK Part No. MP9 : Square HOLDER BA : 2 LED	

## Features:

- Low power consumption.
- High analytic.
- Fast response.
- Good lock and easy to assembly.

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## Package Dimensions:



### Notes:

1. All dimensions are millimeters.
2. Tolerance is +/-0.25mm unless otherwise noted.
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**Absolute Maximum Ratings at Ta=25°C**

Parameter		Symbol	Rating	Unit
Emitter	Forward Current	I <sub>F</sub>	50	mA
	Power Dissipation	P <sub>d</sub>	75	mW
	Reverse Voltage	V <sub>R</sub>	5	V
	Peak Forward Current *1	I <sub>FP</sub>	1	A
Receiver	Collector Current	I <sub>c</sub>	20	mA
	Power Dissipation	P <sub>d</sub>	75	mW
	Collector-Emitter Voltage	V <sub>ceo</sub>	30	V
	Emitter-Collector Voltage	V <sub>eco</sub>	5	V
Operating Temperature		T <sub>opr</sub>	-40to+85	°C
Storage Temperature		T <sub>stg</sub>	-40to+100	°C
Soldering Temperature *2		T <sub>sol</sub>	260±5	°C
Electrostatic Discharge		ESD	2000	V

\*1: Pulse Width ≅ 100 μ s and Duty ≅ 1%    \*2: Soldering time ≅ 5 seconds.

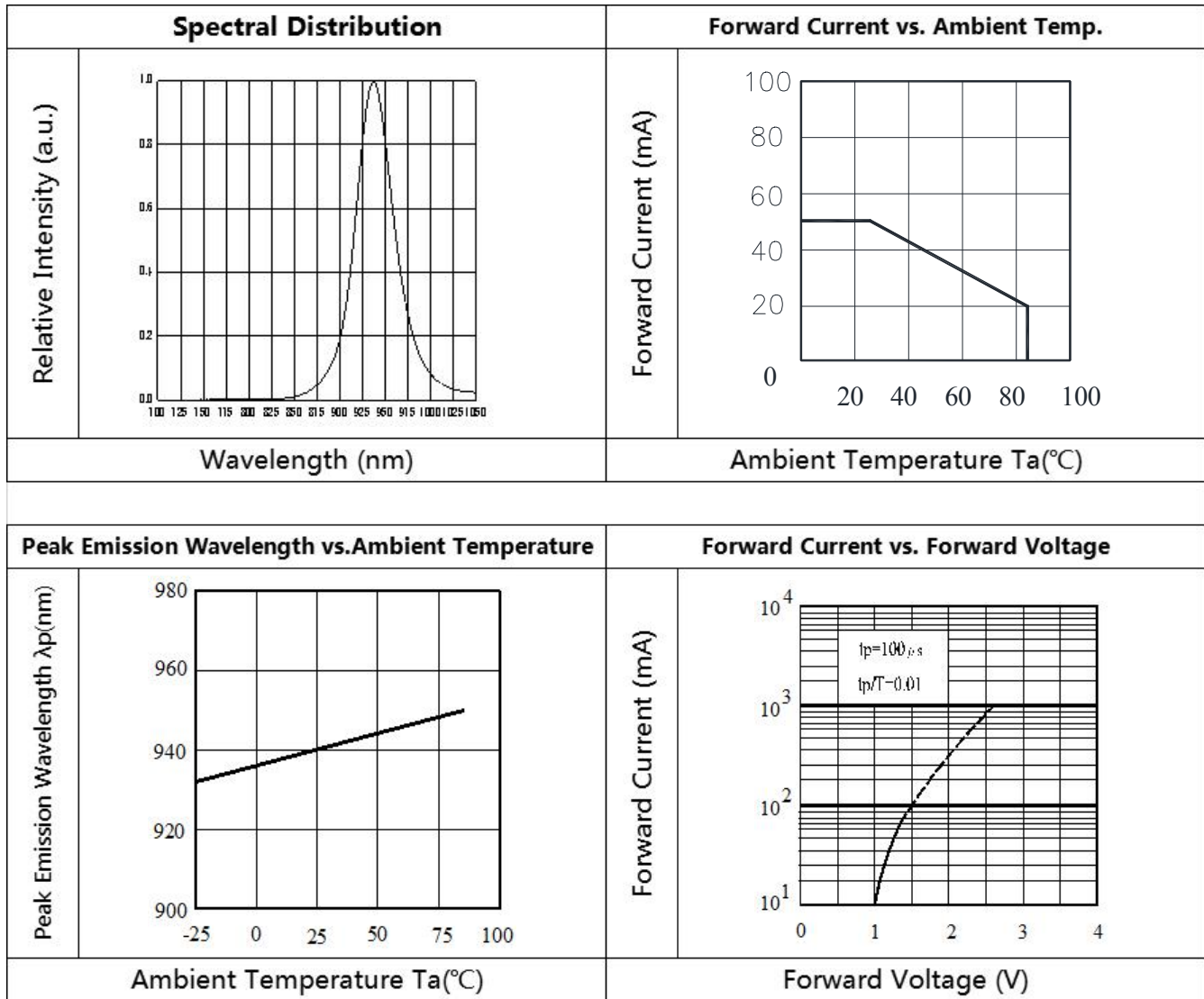
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## Electrical and Optical Characteristic

Parameter		Symbol	Condition	Min.	Typ.	Max.	Unit
Emitter	Forward Voltage	$V_F$	$I_F=20\text{ mA}$	/	1.2	1.5	V
	Reverse Current	$I_R$	$V_R=5\text{ V}$	/	/	1	$\mu\text{A}$
	Peak Wavelength	$\lambda_p$	$I_F=20\text{ mA}$	930	940	/	nm
Receiver	Dark Current	$I_d$	$V_{CE}=20\text{V}$	/	/	100	nA
	C-E Saturation	$V_{ce(sat)}$	$I_c=0.5\text{mA}$ $I_F=20\text{ mA}$	/	/	0.4	V
Transfer Characteristics	Collect Current	$I_{C(ON)}$	$V_{CE}=5\text{V}$ $I_F=20\text{ mA}$	0.5	/	/	mA
	Rise time	$T_r$	$V_{CE}=5\text{V}$ $I_C=1\text{mA}$	/	15	/	$\mu\text{S}$
	Fall time	$T_f$	$R_L=1\text{K}\ \Omega$	/	15	/	$\mu\text{S}$

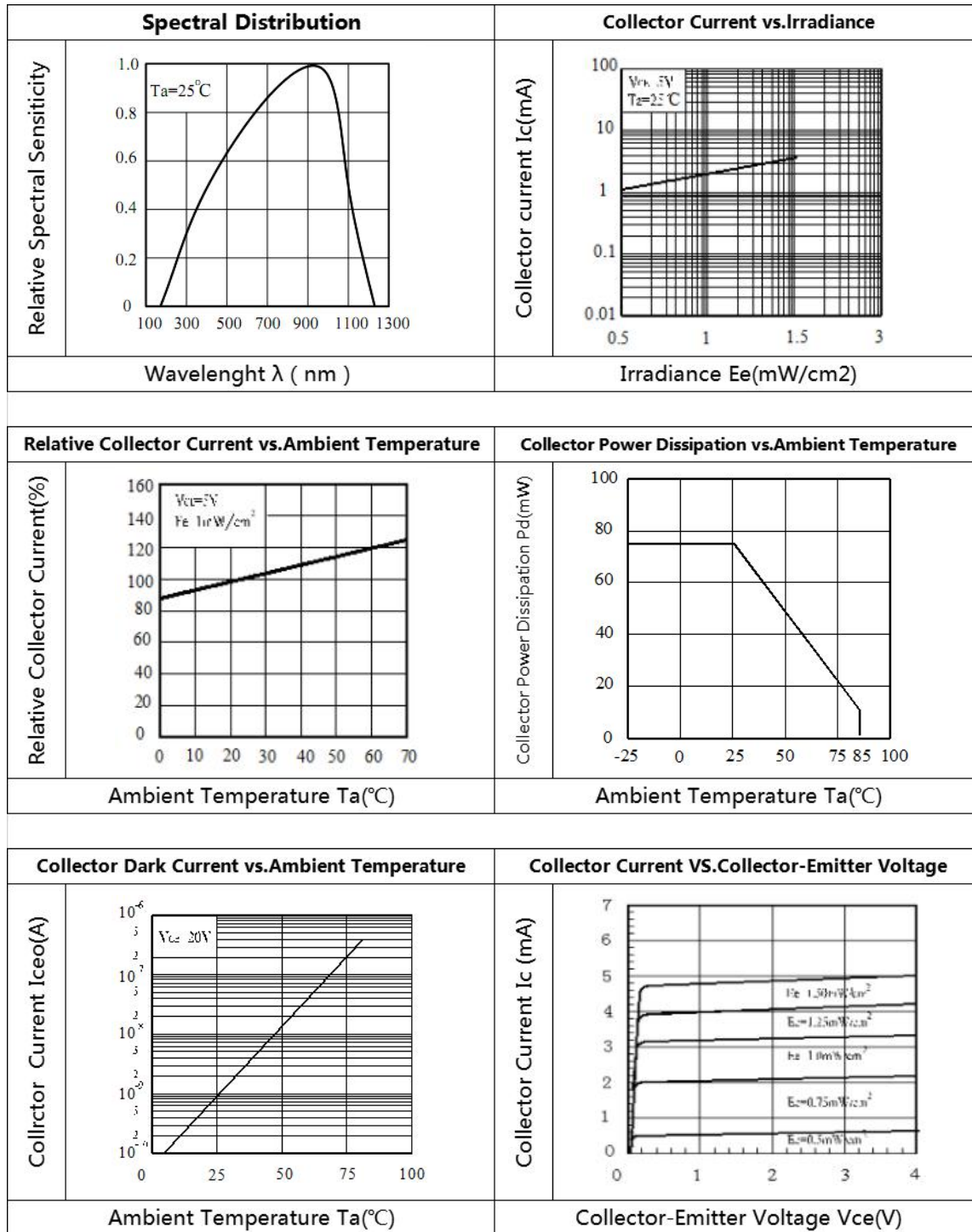
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## Typical Electro-Optical Characteristics Curves For IR



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## Typical Electro-Optical Characteristics Curves For PT

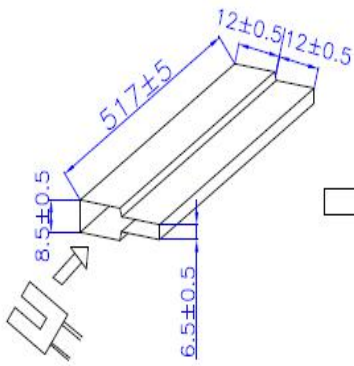


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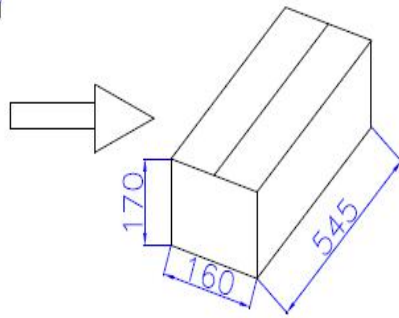


## Packing Specification:

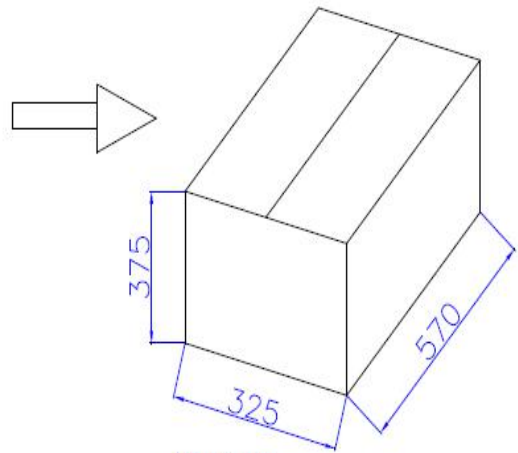
50PCS/Tube, 100Tube/Box, 4Box/Carton



Tube

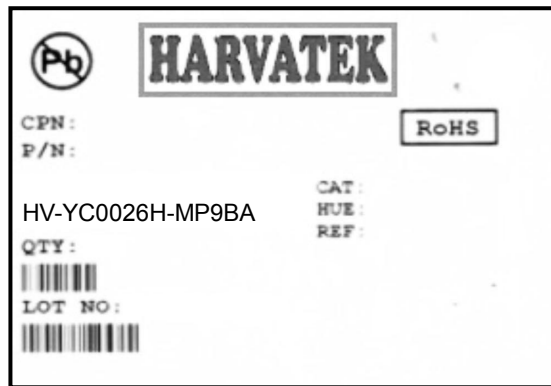


Box



Carton

UNIT:MM



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## Revision History

Revision	Page	Version No.	Revision Date
Initial Release		1.0	03-01-2017
Add Typical Electrical/Optical Characteristic Curves	7,8	1.1	06-16-2017
Update Package Dimensions	4	1.2	08-23-2017
Update Package Dimensions& Packing Specification	4,9	1.3	09-01-2017
Change the Holder and PIN size	4	1.4	06-01-2018
Add ESD /Modify Reverse Current	5,6	1.5	06-14-2018
Change Typical Electrical/Optical Characteristic Curves	7,8	1.6	07-09-2018
Change of “Voltage” to “Light Current”	6	1.7	07-16-2018
Add Test project	6	1.8	08-08-2018
Modify Package Dimensions	4	1.9	08-12-2019
Modifies Peak Wavelength	6	2.0	11-11-2019

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