



# 深圳市晶创和立科技有限公司

## SHENZHEN JINGCHUANGHELI TECHNOLOGY CO., LTD.

TEL: +86-755-2321 0829

[Http://www.szichl.com](http://www.szichl.com)

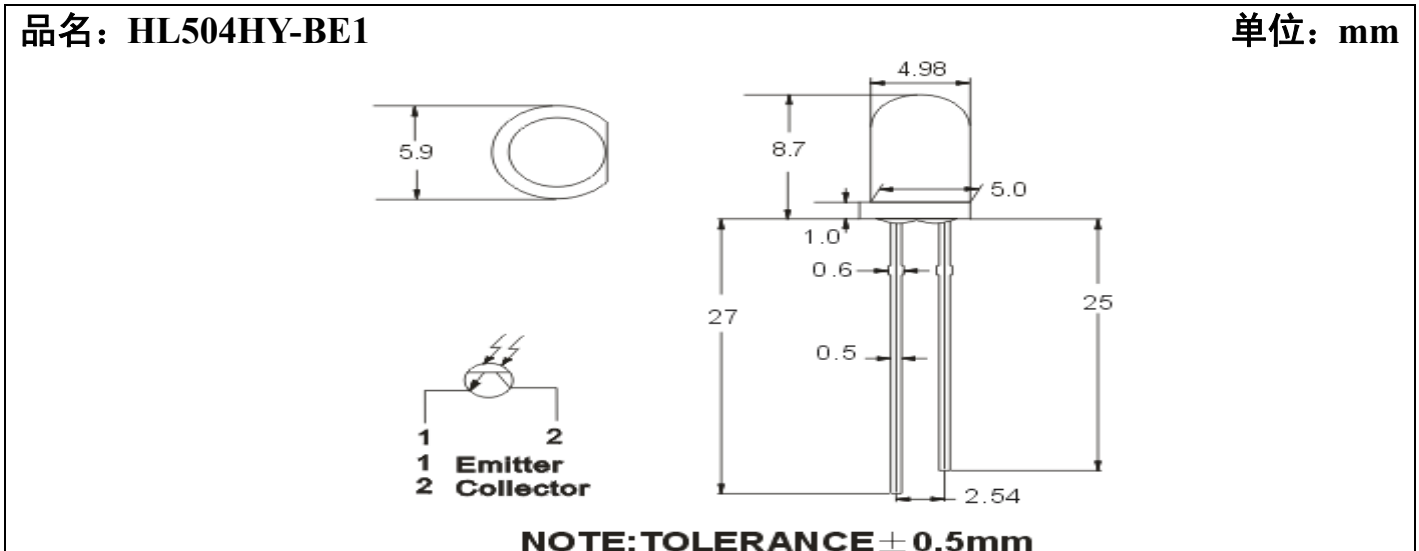
FAX: +86-755-2321 0825

[E-mail:heli@szichl.com](mailto:heli@szichl.com)

广东省 深圳市 龙华新区民治街道牛栏前天宫安防大厦 9CF013 室

Room 9CF013, Temple security building, Niulanqian Minzhi street, Longhua district Shenzhen P. R. C

### 光敏管 HL504HY 规格书



Parameter	Symbol	MIN.	TYP.	MAX.	UNIT	TEST CONDITION
Collector dark current	$I_{CEO}$			100	nA	$V_{CE}=20V$ $H=0mW/cm^2$
C-E Saturation Voltage	$V_{CE(Sat)}$			0.2	V	$I_C=2mA$ $I_B=100uA$
Current gain	$h_{FE}$	200		1800	uA	$V_{CE}=5V$ $I_c=2mA$
Rise Time(10%to90%)	$t_r$		15		uS	$V_{CE}=5V$ $I_c=1mA$
Fail Time(90%to10%)	$t_f$		15			$R_L=100ohms$
Wavelength of Peak Sensitivity	$\lambda_p$		940		nm	
Range of Spectral Bandwidth	$\lambda_{0.5}$	400		1200	nm	
Collector-Emitter Breakdown Voltage	$V_{CEO}$	30			V	$I_C=100uA$ $I_B=0$
Emitter-Collector Breakdown Voltage	$V_{ECO}$	6.5				
Collector Current	$I_C$		20		mA	
C-Power dissipation	$P_C$		75		mW	
Collector-base Capacitance	$C_{CB}$	5.4	6.4	7.4	PF	$f=1MHZ$ $V_{CB}=3V$



# 深圳市晶创和立科技有限公司

## SHENZHEN JINGCHUANGHELI TECHNOLOGY CO., LTD.

TEL: +86-755-2321 0829

[Http://www.szichl.com](http://www.szichl.com)

FAX: +86-755-2321 0825

[E-mail:heli@szichl.com](mailto:heli@szichl.com)

广东省 深圳市 龙华新区民治街道牛栏前天宫安防大厦 9CF013 室

Room 9CF013, Temple security building, Niulanqian Minzhi street, Longhua district Shenzhen P. R. C

### Absolute Maximum Ratings

Parameter	Symbol	Rating	Unit
Power Dissipation at (or below) 25 °C Free Air Temperature	Pc	75	mW
Collector-Emitter Voltage	V <sub>CEO</sub>	30	V
Emitter-Collector Voltage	V <sub>ECO</sub>	5	V
Collector Current	Ic	20	mA
Operating Temperature	Topr	-25~+85	°C
Storage Temperature	Tstg	-40~+85	°C
Soldering Temperature (1/16 inch from body for 5 seconds)	Tsol	260	°C

### Electrical Optical Characteristics:

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition
Collector Dark Current	I <sub>CEO</sub>			100	nA	I <sub>e</sub> =0mW/cm <sup>2</sup> V <sub>CE</sub> =20V
On State Collector Current	I <sub>C(on)</sub>	0.7	2.0		mA	I <sub>e</sub> =1mW/cm <sup>2</sup> V <sub>CE</sub> =5V
Emitter-Collector Breakdown Voltage	BV <sub>CEO</sub>	30		100	V	I <sub>C</sub> =100 μA I <sub>e</sub> =0mW/cm <sup>2</sup>
Collector - Emitter Breakdown Voltage	BV <sub>ECO</sub>	6.5			V	I <sub>C</sub> =100 μA I <sub>e</sub> =0mW/cm <sup>2</sup>
Collector-Emitter Saturation Voltage	V <sub>CE(sat)</sub>			0.2	V	I <sub>C</sub> =2mA I <sub>e</sub> =1mW/cm <sup>2</sup>
Current gain	h <sub>FE</sub>	800		1800	μA	V <sub>CE</sub> =5V I <sub>e</sub> =2mW/cm <sup>2</sup>
Wavelength of Peak Sensitivity	λ <sub>p</sub>		940		nm	
Range of Spectral Bandwidth	λ <sub>0.5</sub>	450		1100	nm	
Response Time	Rise Time		15		μS	V <sub>CE</sub> =5V I <sub>e</sub> =1mA R <sub>L</sub> =1000Ω
	Fall Time		15		μS	
Collector-Capacitance	C <sub>CB</sub>	5.4	6.4	7.4	PF	f=1MHz V <sub>CB</sub> =3V



TEL: +86-755-2321 0829

[Http://www.szichl.com](http://www.szichl.com)

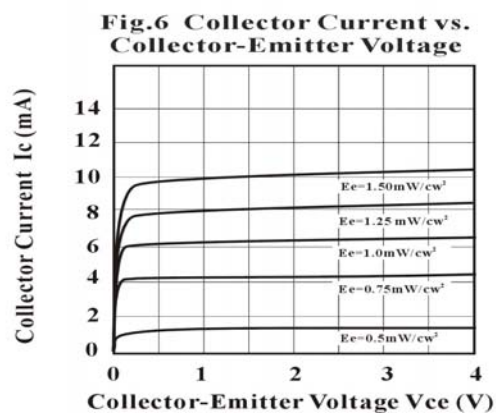
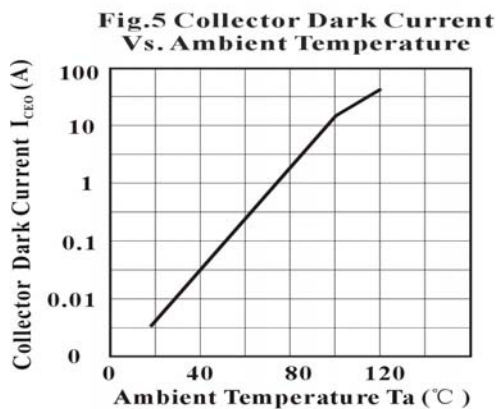
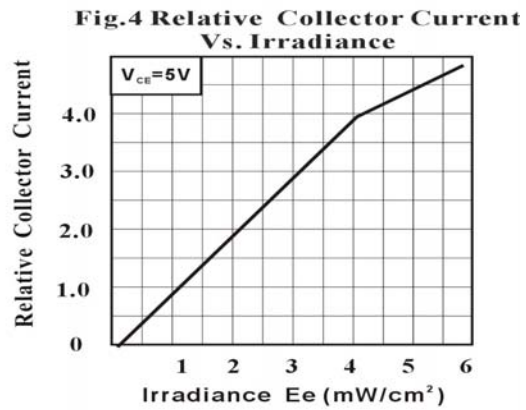
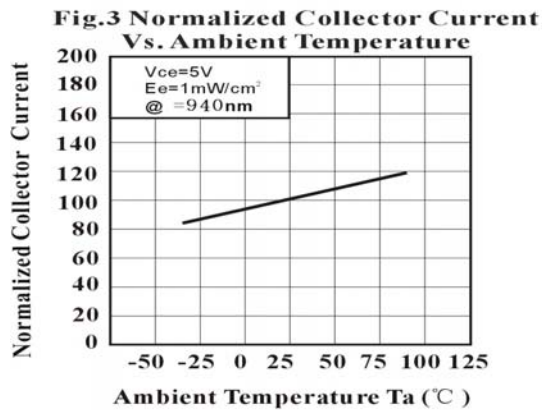
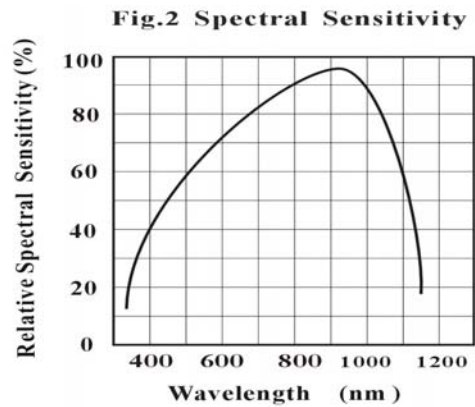
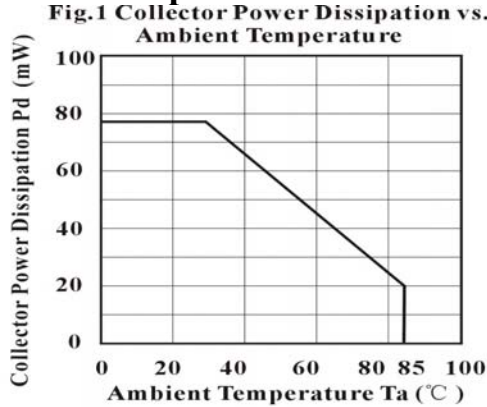
FAX: +86-755-2321 0825

[E-mail:heli@szichl.com](mailto:heli@szichl.com)

广东省 深圳市 龙华新区民治街道牛栏前天官安防大厦 9CF013 室

Room 9CF013, Temple security building, Niulanqian Minzhi street, Longhua district Shenzhen P. R. C

**Typical Electrical-Optical Characteristics Curves**



- ABSOLUTE MAXIMUM RATINGS: (Ta=25°C)
- OPERATING TEMPERATURE: -25°C TO +85°C
- LEAD SOLDERING TEMPERATURE: 260°C FOR 5 SECONDS